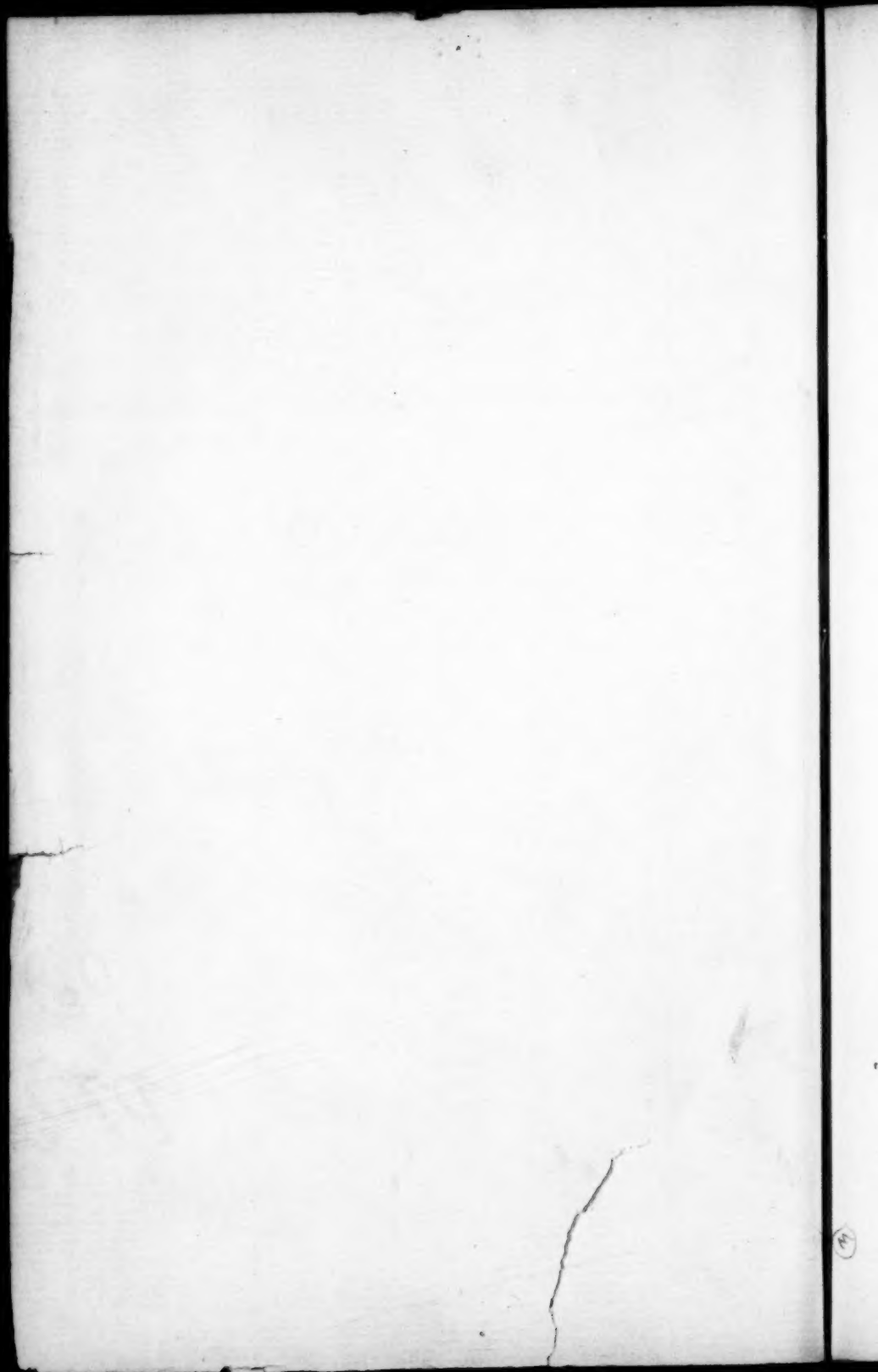


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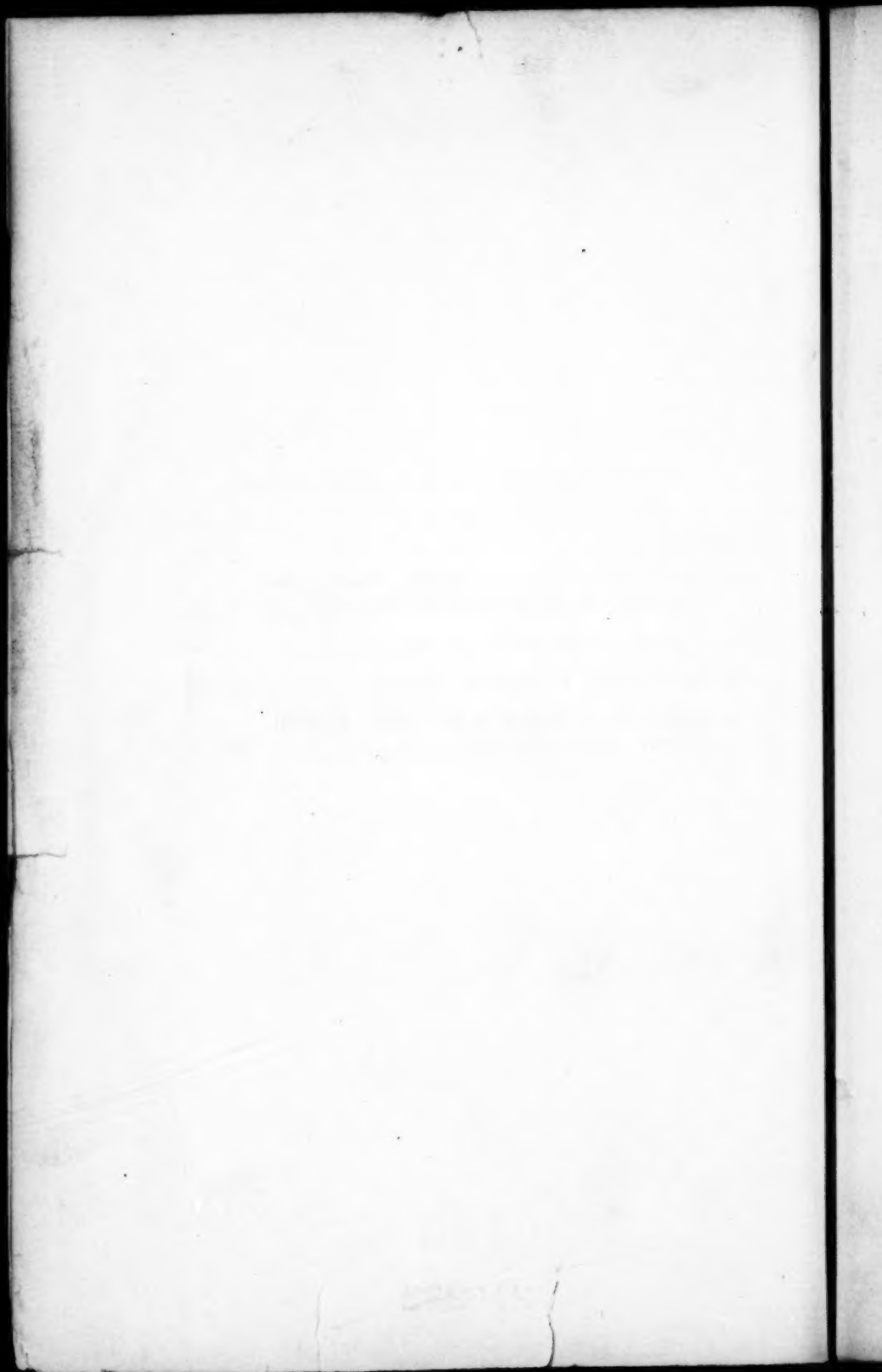
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THE MAKING OF ECONOMIC LITERATURE.

ANNUAL ADDRESS OF THE PRESIDENT
SIMON N. PATTEN.

It is difficult to realize the change that has been wrought by economists since this association was founded. So popular has economic thinking become, so prominent is its position in all colleges and universities, so numerous are the books, articles, and journals devoted to its discussion, that it seems a natural state of affairs that must always have existed. And yet all this is the work of a group of enthusiasts, meeting at Saratoga twenty-three years ago without a single book to their credit, without journal to voice their views, and without university position to give them support. Today economics is in everyone's thought and on everyone's lips. We do not lack students; we do not lack organs or audience; nor do we lack zeal for the further prosecution of the work already begun. So much we can fairly claim, and all honor to those who have taken part in the work. If this were our only goal we might be proudly satisfied with our record and pass on the Association to our successors with a consciousness of a life's work well done.

There is, however, no great American problem that has been solved. With every vital question we stand on a half-way ground, halting between the old and the new, and if these half truths are all we have to offer we may harm the public more than we aid them. Confusion and defeat stare us in the face politically, morally, and economically, if the disappearance of old customs, traditions, and modes of thought is not followed by the rise of new

concepts, ideals, and institutions. We cannot afford to be mere iconoclasts. We must lay the foundation of a new civilization and show how economic forces will remedy evils that may soon be unbearable. We have thus a problem—a difficult problem—to master. Are we mastering it or merely drifting with the tide?

If it is hard to divide the centuries into epochs, it is still more difficult to distinguish between parts of a period of twenty years, and yet there is enough difference between the first and second halves of this period to give them a distinct character. The best method of illustrating this difference is to examine the change in our periodical literature. Twenty years ago the dominant element was thought and theory, while at present description and illustration have the first place. The theoretic discussions we now have are by persons who earned their reputations in the first epoch. The younger generations of economists have evidently been turned in other directions. The same tendencies are manifest in doctors' theses. I recall many young men who gained standing by an essay of not more than thirty pages. They won recognition by clear thought and a sharply defined thesis. Today they launch forth in a three hundred page pamphlet that tires the reader with its massive collection of facts; and the making of books is going the same road. No one seems willing to stop short of the German standard by which prestige is gained through bulky volumes that fill yards of library shelves.

The young doctor with a three hundred page pamphlet to his credit has worked harder than his predecessor, but he has pushed forward neither the science nor the nation. The writers in journals state the current problems of the economic world with great clearness, but they leave us muddled as to their solution. And book-making has

become an art of collection and restatement that substitutes clippings and card catalogues for clear thought. Once when I complained to a fellow writer of the difficulties of book-making he volunteered to show me his method, which was to employ a clipping bureau to send him extracts from papers and periodicals falling under each of the heads of his book. When he wrote a chapter he read over these clippings and thus the book came into being almost of itself. Another writer took a shorthand reporter with him when he interviewed people familiar with a selected topic and from this material created an acceptable book. A more familiar illustration is that of college debaters. A series of questions is a drag-net that will bring in the best of the current thought and the questioner can be reasonably sure to get what he wants with little work on his part.

There are writers whose work deserves commendation, and yet the art of popularizing is so prominent that the fuller view of the earlier epoch is lost sight of in the struggle for immediate results. A theoretic writer can no longer gain through his work the commanding place that would have been given him even a dozen years ago. Not only has he in this way lost prestige, but his work is more impersonal than it was, so much more so in fact that he scarcely ever derives personal advantage from it. The popular speaker and writer are quoted everywhere, and thus gain a name on which position and income depend. The theorist, however, finds few readers, and his contrasts when fresh and striking are appropriated by popular writers without credit. A man who worked for years on an important topic finally brought out a book that set off his thought by a brilliant contrast that really contained its essence. When this was first used by an editorial writer he gave full credit. Soon editorials by

the score appeared in other papers which gave the new thought and expounded it by means of the new contrast, but no credit was given to its author. These writers had apparently read the first editorial, but not the book, and cared more for making an impression than for justice.

In one way the author should be greatly pleased, since the end for which he worked was so easily attained. But in so far as a personal element was a motive, he gained less than if he had been the author of one of the editorials based on his book. Books now drop out of sight in a few months; often they are dead before the reviews of them begin to appear. But their contrasts and telling phrases live on and are pushed over into the popular consciousness in a thousand indirect ways that make them effective and often as immortal as they are impersonal. Today the popularizer is so close on the track of the thinker that his book is made a part of literature before it is dry from the press. To think clearly is to be altruistic. Honors and rewards come only to those who by pen or speech pass along to the public the books and essays it will not read. And the professor, like the writer and speaker, gets his promotions by what he appropriates. Economists are not free from tendencies that dominate elsewhere. And hence it is that each year we pay less attention to clear thought and more to its expression.

Such considerations warn us of the difficulties economists must meet, and also give the clue as to the line of real progress. An economist cannot hope to succeed either in gaining personal renown or in influencing the public by book-making or essay writing; the only part of his work that lives on is his charts, diagrams, and contrasts. To say this is probably to shock and possibly to give offense. Most of us have an ambition to write some day a ponderous volume, and if we lack confidence in our

ability to do this we at least hope some of our contemporaries will do it for us. "Oh for an Adam Smith or a John Stuart Mill to do for our age what they did for their own." We all feel this and long for its realization, and yet those who try fail, not from lack of ability, but because they are trying an impossible task and are moved by a false ideal. The first volume of such a treatise has occasionally been written, but the repeated postponement of the completing parts reveal obstacles that even the ablest men are unable to surmount. The trouble is that the author exhausts his contrasts, diagrams, and charts in his first volume and has nothing left for subsequent volumes except hazy generalizations, dull descriptions, and utopian dreams. In contrast to this ideal of bulky volumes and complete discussion I hold that the better the economist the clearer, shorter, and more precise are his utterances. The essence of economic literature lies in its contrasts. A book is merely the trail along which its author has gone in his search for clear expression and sharp analysis. This is of great importance to the author, but of little consequence to the reader. In no place can this be more clearly seen than in the *Wealth of Nations*. Who would go to Adam Smith for his material? And yet there are hundreds of pages of it badly arranged and poorly presented. The book would have gone to the trash pile as soon as printed if this were all there was in it. The real gems in the book are its fresh contrasts. The very possibility of a scientific political economy depended on the contrast of sympathy with self-interest and the form that the economics of the next century was to take was fixed by the contrast of land, labor, and capital in production, and of rent, interest, and wages in distribution. From these contrasts no one has broken, but they all might have been stated on a single page or put in

telling diagram. The five hundred pages of reading matter which it took Smith ten years to collect and to write is of value to the student of his development, but is of no consequence to those who after him take up the task of creating economic literature. Malthus and Ricardo were likewise successful in their contrasts, but failed in their attempts at book-making. The successful writers of to-day show this fact even more tellingly. What could have been more important and effective than the contrast between present and future goods, and where is there more of a failure than the book in which this gem is imbedded? And if one may without offense pass a judgment on our greatest living economist, I will say that I have pitied him for the pressure of false ideals which made him spend years to write a volume of many hundred pages to express contrasts that could have been more forcefully put in a twenty page pamphlet. No one can write a four hundred page book that will stand. Telling contrasts get an immortality that is denied books, and the more concise the expression the longer the life and the greater the influence. The phrase "economic interpretation of history" is worth more than all the books that seek to expound it. The force of socialism lies in three phrases, "class struggle", "exploitation", and "surplus value". No one who has mastered these concepts need study Marx's diffuse and obscure argumentation. Giddings' *Sociology* may be divided into two parts, the book and the phrase "consciousness of kind"; and the phrase will outlive the book. Our concept of the problems of population has been radically altered by the phrase "race suicide". Many volumes as erudite as Malthus's *Principle of Population* could not have had the influence it has had nor thrown so much light on the problems and tendencies of our age. So, too, *The Abolition of Poverty* gives us a

thought that volumes of description could not express, for with one stroke it separates poverty from the moral background with which it has been associated and shows it to be an evil for which society is responsible. Poverty is changed from individual depravity to maladjustment, and with this new viewpoint a world is opened up for enthusiasm and sympathy to conquer. Hobbes's "state of war", Rousseau's "natural man", Ricardo's "cost prices", Spencer's "survival of the fittest" are vivid illustrations of the fact that phrases are more important than volumes and have an immortality that no scientific book can gain. Only when we recognize this principle can we see the tremendous waste of time and energy that book-making has imposed on the scientific world. No group of scientists has suffered more from this error than the economists. We have had the misfortune of having our origin in the undifferentiated field from which has also come the moralist, the political scientist, and the historian. As our traditions come from them they give to our literature a form not fitting to its content. The moralist and political scientist naturally cultivate fluency because their contact with the public is mainly through spoken words. The historian cultivates elegance and can hardly get started before the third volume, and the sociologist is quite as bad a model because he starts with Adam and seldom gets beyond Moses.

In such company the economist seems to be a hybrid product of book worms and hair splitters. In contrast with them his instincts should be that of a bookkeeper and a cartoonist. He should be orderly, not fluent, clear and concise, not diffuse or ornate. He should cultivate visual expression by using charts and diagrams and arouse the imagination by striking phrases and vivid contrasts. His vehicle should be the newspaper and the mag-

azine, not the scientific journal. The public want what we have, and if we have something it does not want it is not worth having. To be scientific is to be popular. There is no renown worth having but that of the newspaper and the magazine and the class room. To fail of appreciation in these quarters is a confession of defects that prove a man's unfitness. Such a student should go from us to fields less closely attached to the present, where other tests than the power of expression suffice to give men standing and repute. There can be no economic literature apart from general literature. We give the content to which others give the form. To separate ourselves from the general literary movements of the age is to deprive ourselves of influence and literature of a content. Other writers must be our spokesmen; we must be their guide and inspiration. The place of the economist is on the firing line of civilization; his product must be clear, concise and impersonal, instead of being submerged in bulky volumes and formal treatises. Our real affinity is with the journalist, the magazine writer, and the dramatist, and not with writers who, separated by time and space from what they describe, function as critics of persons and events instead of being actors in the momentous struggles of the present.

I remember the satisfaction I once had when a fellow economist said "the library is our laboratory". I then thought that our sources are the accumulated records of past epochs and that what the past tells about the present is of more value than what the present tells of itself. If, however, the current economic events are of more importance than the defective records of the past piled on library shelves, an economist has no business to be in a library nor to send his students there except as it contains and classifies current literature. He has less use for a card catalogue of musty books than for one of events, edi-

torials, and articles of the passing year. We need fresh observations, not fine arguments; we need clear contrasts, not the accumulation, arrangement, and restatement of antiquated obsolete data. No fact is valuable to the economist unless it is also valuable to the journalist who summarizes events, the editor who comments on them, and the reformer who uses them. No argument is good in a book or in a classroom unless it would convince the million readers of a daily paper and could find place in the campaign book of a political party. The book goes nowhere unless it goes to the reader of papers and magazines. Thought is no longer in isolated compartments affecting only particular persons or classes. Its waves are like effects of a pebble thrown into the ocean. If it moves the particles it hits, it moves every other particle, no matter how distant. If we move our students we move the world. If we fail to move the world we deceive ourselves if we think our students have been moved by the specialized knowledge we hurl at them. There is but one real world, and whoever would exert an influence must be in it. Let the historian, the sociologist, and the student of literature have the library and all the gems they rescue from its dark corners. Economists should work in the open and get their inspiration from the struggle and evolution which passing events reveal; for where change is there should also the economist be.

So long as economic scholarship is associated with library research we may expect theses to continue as a test of economic proficiency. Secondhand data and antiquated material thus get a place they do not deserve. The student is turned away from real life and often acquires a prejudice against it. A three hundred page thesis not only does not fit a man to be an economist: it really incapacitates him for work. The failure of young teach-

ers is mainly due to the overspecialization that thesis writing invites. It takes years of hard knocks to realize that the facts of theses and books are not good material for the class room. Library economics is a vice that hampers the growth of the science more than the hairsplitting logic of would-be reformers. We must some time learn that real investigations cannot be carried on in libraries no matter how complete they may be. We must also learn that individual investigators, no matter how well directed, seldom add new facts to our fund of knowledge. The range of social investigations is so great that only large institutions like the Bureau of Municipal Research, the Russell Sage Foundation, or the national government can really do effective work. Under these conditions a thesis is a waste of time and a misapplication of energy. It merely adds a new statement of old facts to a market already overstocked. The young economist should be drilled in effective presentation, not in fact accumulation. His home should not be in the library, but in the class room, and when sufficiently proficient to investigate, he should be loaned by the university to the government, to local committees, or to institutions capable of handling social problems on a scale that commands success. The university should furnish investigators, but should not become a mill for turning out small scale investigations that excite ridicule instead of respect. If it encourages book-making innumerable volumes appear that merely rearrange old material and give a personal touch to old arguments and viewpoints. Give men two dollars a page for writing articles and a journal will have the same facts presented different ways in each of its volumes. We want, however, net results, not the gross product. Measured in this way, our books and journals make a pitiable showing. And this will continue as long as universities encourage

book-making and economic journals pay for articles and reviews. If these props to misspent efforts were removed, the number of books, articles, and reviews would be reduced to their normal proportion.

A scientific writer should have no other reward than what comes from a love of work. The test of his growth in thought is the reduction of the space he uses to present it. It is hard to tell which is the worse evil: to have a scientific writer expand an essay into a huge book or for a popular writer to collect his essays and articles into a similar volume in the hope of passing them off as a scientific product. Both evils confuse and annoy and can be removed only by concerted action following a clearer recognition of the function of economic literature in modern life.

A publisher to whom I offered a book said that it would give me a reputation, but there would be no sales. I have pondered on that remark many times. Is the reputation that comes from a book having no sale a real reputation? And is not—and this question I ask in all seriousness and with much hesitation—is not a reputation that you or I acquire through books published by our universities or the periodicals they support a fake reputation—that it is not honorable for us to have? If there was no real world and no large audience seeking increased light on current problems, we might be justified in accepting such support and pride ourselves in the luster it gives. But when real tests of success are at hand, false ideals prevent the application of tests that would sift the chaff from the wheat. For Jones to write for Smith and Smith for Jones—or for both of them to write large books to enable them to pose before college presidents, boards of trustees, and admiring groups of friends makes a farce of economics and prevents its advance. So long as we are useless pampered

creations of false university ideals our books and pamphlets are of no more consequence than we are when wearing caps and gowns in a university parade. A bit of color, an impressive picture, perhaps, for parents and friends to look at when they come to see their sons graduate, but something soon to be forgotten except as a part of a pleasing memory.

In reality our books are of less consequence than caps and gowns, and I doubt not that universities would profit if they used the money now spent in printing useless books and journals in giving more color and grace to public anniversaries. So few of the public go to libraries or read reviews of pompous volumes, that self-advertisement in these ways must bring a meager return. And why shall false investment of time and energy be demanded when a real public is at hand craving for information and inspiration. Surely economists have little reason to accept false standards when real tests are so plainly visible. Ten articles written for special journals should not give the reputation that comes from having one accepted by any reputable magazine that makes effective presentation a test of acceptance.

To outline a program for the reform of economic studies is too large a task for a presidential address, yet some of its principles are so evident that the address would lose point without them. We have consciously tried to create graduate schools of economics and have failed, yet our work has in an unplanned blundering way passed over into the undergraduate world and succeeded. The reason for this is that with undergraduates we have been forced to cultivate clearness of thought and have thus found a fitting field for our activities. Reform in the graduate schools means a like transformation. They must be changed from schools of acquisition to schools of ex-

pression. The ideal graduate school is a school of journalism just as the ideal undergraduate school is one fitting men for business. We shall never make a graduate school of business, try as we may, but we can create a school of economic expression that trains men for teaching, magazine writing, and journalism. A good debater is a better economist than a writer of theses, and to have won an intercollegiate debate should count more than library work. Every economist should seek for journalistic experience and have his standing measured by his success. No economist is an economist until he has said to himself, "I wish I were an editor."

If this be true the complement for graduate economics is not history, politics, and sociology, but literature and law. We should be grouped with other social sciences when teaching undergraduates, but we should sharply isolate ourselves from them in graduate work. Our fundamental needs are for the power of expression and the spirit of legality. Economists are by education and tradition revolutionists. The Lord made the world in seven days; we want to remake it in one. So we join hands with anarchists, socialists, and other advocates of violent change, and cry ourselves hoarse in advancing their measures. Economics is like a South American republic; no one is satisfied unless there is a revolution once a decade. Law, however, is the one social science that has advanced solely by evolution, and we have much to gain by acquiring its spirit. And law would gain equally by an alliance with us; for the socializing of law is the most important and pressing need of the American people. Legal encrustments of social traditions are the worst foe of progress. Law can be made mobile only by the proper appreciation of economic change; economics can be saved from a series of revolutions only by the spirit of law. When these two

sciences are properly blended evolution will be constant and progress orderly.

Comrades, are you satisfied? Do you point with pride to what you have done or do you look ahead for new fields to enter? We can all, it is true, report an increase of students, more enthusiasm, better results. But are these worthy objects the goal of economics? To me only two ends seem prominent enough to deserve approbation: the redemption of the college and the control of public opinion. The one end we can attain through the superiority of our class instruction; the other we can acquire indirectly by giving clearer ideals and better programs to those who direct public affairs. We now have the place in education that Greek formerly had, and upon us therefore depend the perpetuation of the college and the ennobling of its aims. We must socialize it by making sympathy, coöperation, and generosity its dominant ideals. What we do for the college our allies can do for the nation. First the economist, then the journalist, and finally the legislator; this is the order of progress and the key to success. The world is ours if we enter it by the right door.

ECONOMIC LITERATURE—DISCUSSION.

J. E. HAGERTY: I agree with the President in much that is stated in the paper, and find that our chief differences consist in what appears to me to be an over-statement of facts.

If economics is a science, its methods should differ in no important particulars from those of other sciences. As a science its data is in the business world, and this data must be procured, classified, and properly appraised. This should be the first step. The great difficulty with the economic theory of the past is that it was founded chiefly on impressions. If economics is to progress beyond the initial stages of science, it must be based on a complete knowledge of the business world,—that is, business practices, the mechanism of business, and the evolution of modern business.

How is this knowledge to be obtained? I agree with Professor Patten that it is not to be obtained from the library, culling out facts from musty volumes frequently written by men who had an inadequate idea of the industrial institutions they were describing. This knowledge must be obtained in the business world, and very largely at first hand. The men who occupy the various business positions possess the knowledge which we must know and on which we must reason.

Some students in the Bureau of Social Research, New York City, are investigating the agencies organized to sell food products to the people of New York, with the purpose of learning the influence of these institutions on prices. This data can be obtained only in the open field by studying the market conditions at every point from the

producer to the consumer. It is only by getting an exact knowledge of the various selling agencies, and of the foods disposed of, that they will know whether high prices are a result of clumsy methods of distribution or not. When the results are obtained it ought not to be necessary to fill a ponderous volume in describing the institutions and in drawing conclusions.

In discussing phenomena the cumbrous monograph, which not even the economist reads unless a special interest compels him to do so, has been overworked. Concise description and clear-cut conclusions will preserve the data and exert a permanent influence. But I do not see how we are going to escape the necessity of thorough investigations in every department of business activity. In their times Adam Smith and J. S. Mill had simpler tasks to perform than we have today. No detailed studies were necessary when Smith wrote. The industrial organization was simple then, and the facts of business were well known. The business world today has attained a degree of complexity undreamed of even in Mill's time, and this change in organization has made necessary a change in methods of study.

I believe with the writer of the paper that the value of the science is in direct proportion to its influence on progress. We should move the world, but we should not be too much concerned with the process of the moving. The economist should be on the firing line of civilization, but instead of firing he should furnish the ammunition.

The science has been discredited in this country at times owing to its direct connection with governmental policy. The teaching of the doctrine of free trade had much to do with the prejudice against it over twenty years ago. We seem to have emphasized studies from decade to decade in conformity with the national interest of the times, and

the science was popular or unpopular as public opinion approved or disapproved of the teachings of the economists. The solution of problems on purely theoretical grounds does not meet with popular favor. The real work and sphere of the economist in influencing public policy directly can be illustrated in the present agitation for tariff revision. If it be admitted that some tariff is necessary in our national policy, it must be obvious that the present methods of tariff revision will fail. The tariff, instead of being lowered, will undoubtedly be raised. If the theory of adjusting the tariff to the differences in cost of production here and abroad is carried out, the absurdity of the present method must be apparent. With the complexity of our tariff schedules there is needed a commission to make an exhaustive study of factors in cost of production and the various conditions of production in different countries. The members of this commission must be economists or have training in economics. It is not necessary that they should frame the tariff law, but they can state the conditions according to which the tariff must be constructed.

I cannot agree with the President that a good debater is a better economist than a writer of theses. Good debaters are clear, and strong in the power of expression; but they are too biased to be scientific and too narrow to be accurate. A man with the debater's instincts is too positive, too lop-sided, and too anxious to prove one side of a case. As a matter of fact, a debater has to be unmade before anything can be done with him scientifically.

A man with the instincts of the newspaper man and cartoonist is as hopeless as the debater, though for a different reason. He is too much interested in the sensational to give truth its proper setting. Unimportant things that lend themselves to vivid description are

pushed into the foreground and essentials are ignored. Power of presentation and a desire to reach the masses are qualities that would ruin any scientific investigator.

The chief message of President Patten to the Association, as I interpret it, is that economic investigation should be along lines most demanded by public policy; and the results of the investigations should be in such a form as will make them immediately available to the public at large.

On these points Professor Patten is fundamentally right.

F. B. HAWLEY: Professor Patten holds, if I understand him correctly, that there is something lacking to a science, such as political economy, that cannot or has not condensed its teachings into striking phrases or catch-words, as it is only by so doing that an influence in practical matters can be obtained. He, although perhaps the most subtle thinker we have, seems in this address at least to condemn subtlety and to insist that economic truth should be stated only in broad outlines and condensed forms, should be distilled, as it were, into pregnant phrases, capable of inevitably suggesting all or most of their connotations. What he suggests is less theory and more practical application.

Now it seems to me that clear thinking can be trusted to crystalize itself, and that any attempt to force the process can only result in our getting imperfect and muddy crystals,—or, in other words, in misleading phrases and catch-words, which will do twofold more harm than good. The remedy, it seems to me, is not less theory, but more and better theory.

In a recent work I have ventured to assert that the reason for the state of things Professor Patten laments is to

be found in the fact that there is no consensus of the competent as to the exact scope of the science or as to the exact content of its fundamental terms. That this consensus does not exist, none of you will seriously dispute, but I fear few recognize the necessity of obtaining it before the crystallization of economic truth into terse and popular phrases should be attempted.

To illustrate my meaning I will call your attention to the prevalent use, or rather uses, of the term capital,—namely, as “capital goods” and as the “value of capital goods”. Now, firstly, is it possible to think clearly when a fundamental term is given two distinct meanings? Can such a term really have two significations? I, at least, think it is impossible. Secondly, capital is universally treated as a productive factor. Is it really such? Economics is a moral science, concerned, that is, wholly with voluntary human actions. It must inquire not what capital does, but what the capitalist does. It is the capitalist who is an economic factor and not his capital. This seems, to me at least, so self-evident a truth as to be proven in the mere statement. And yet so far as I am aware, no one, until I attempted it in my recent book, has sought the definition of capital by inquiring into what it is that the capitalist “as such” does. There can be but one answer to such an inquiry when made,—namely, that he refrains from the exercise of such purchasing power as he possesses, and lends the power either to others or to himself for a specific time and for a stipulated reward, which is interest alone when he is absolutely secured as to repayment, or interest and a premium of insurance when he incurs some risk of not being repaid. Now “as such” the capitalist never has any “capital good” in his possession. He has absolutely nothing at all to do with “capital goods”, nor has he any interest at all in the value of any

specific capital goods. All the capitalist "as such" can possess is an abstract and unspecified power to purchase. The moment he as an individual invests this purchasing power, he advances beyond the bounds of his distinct function as a capitalist and becomes a capitalist entrepreneur. The man who lends can indeed be said to invest in a claim, but all he really does is to make specific the general and unspecified claim he already possessed. The moment he invests in capital goods, or restricts his claim to the value of specific capital goods, he exercises an additional function entirely different and distinct, namely, the assumption of responsibility.

Now the indisputable fact that investment in capital goods or in their specific value is an action that the capitalist "as such" cannot possibly perform, becomes so plain on a little reflection that I am sure of your ultimate assent. Indeed, that it is the entrepreneur who invests the capital he borrows of the capitalist is so self-evident that it has always been assumed as a matter of course. And yet, illogical as it really is, it has hitherto been assumed equally as a matter of course that these same investments were also made by the capitalist. The absurdity of supposing that there can be two investors in the same investment has been strangely overlooked.

Now the monumental work of Böhm-Bawerk and the treatment of capital and interest by our own Professor Fisher are both founded on the assumption that investment is an action of the capitalist "as such", the inevitable consequence of which is an inexplicable and bewildering confusion of interest and profit. The results aimed at by both authors must be seriously modified if, as I claim, investment is an action only possible to the entrepreneur "as such". And until such results are so modified, how is it possible to condense these results into phrases both

trenchant and true, and that will offer the results of economic theory to popular conception in the form of predigested tablets? Must we not be more certain of what we have to teach before it is safe to embalm our teaching in popular phraseology and catch-words? Must we not first settle absolutely the fundamental terms and scope of our science before attempting to pose as the arbiters of practical application of economic principles?

The scope and definition of the science itself are by no means yet settled. Should we venture upon dogmatic statements before we are exactly sure what we are talking about? And is it probable that we can arrive at particular definitions of fundamental terms before the science itself is positively defined? And will not these fundamental terms define themselves when the exact scope of economic inquiry is positively determined? Is it possible to coin lucid and striking phrases, comprehensible by the man in the street, that embody true and exact economic principles, so long as we ourselves are dubious about the ultimate premises upon which all our deductions are based?

T. N. CARVER: We all doubtless agree with Professor Patten, at least to the extent of saying that if economists can popularize their style without sacrificing scientific accuracy and thoroughness it would be a great gain. I am somewhat disturbed, however, by the remarks of one speaker regarding the low estimation in which economics and economists are held. I have not noticed that myself. I think that if any great business man were to tell me that he regarded economics merely as a field for the exercise of the intellectual proletariat, I should at once ask, at least to myself,—What particular form of corruption are you engaged in now? If the scientific study of econom-

ics is in such low estimation among the business and political interests of Pennsylvania as the speaker seemed to imply, it speaks volumes regarding the political and business corruption in Pennsylvania.

SCOTT NEARING: The point that Dr. Patten makes regarding the influence that an economist should exert over the public is an important one, and we can well test it by the effect which our instruction has upon our classes. We are in direct contact with the students every day, and our effectiveness as influencers of public opinion can be tested at that point as nowhere else.

What do the students in the average class of economics think of the subject? It is my opinion that they regard it as a dry, uninteresting subject which has no possible connection with their life activities.

As a matter of fact, there is no subject that can be made more lively and interesting than economics; and, if it is not made interesting and connected definitely with the lives of the students, the instructor, and not the student, is to blame.

The custom of presenting theory to Freshmen and leaving the practical courses for the later years results in disgusting a large number of Freshmen with the general subject. Freshmen should be shown the connection between economics and their own lives, and if we are to be effective economists we can well start by directly and effectively influencing the younger students who come under our charge.

EDWARD T. DEVINE: My senior colleague in Columbia has used the word pessimism in characterizing President Patten's address. I should not otherwise have wished to take part in this discussion, but I cannot refrain

from saying a word in defense of the address against that particular charge. As I understand it, that man is a pessimist who, whether he may happen to have a favorable opinion or an unfavorable opinion of the matter in hand, is in either case cynically sceptical as to the possibility of doing anything whatever to improve it. A man does not become a pessimist merely by describing a situation as unsatisfactory. Even if he denounces it vigorously he may still be a thorough-going optimist. In fact, an emphatically expressed opinion that something or other should be changed is oftener than not an evidence of optimism. Your pessimist would not think it worth while to get excited about it. He would coolly assure you that no doubt it was bad—things usually are bad—but nothing that you or I can do will make the slightest difference.

Certainly this is not the spirit of Dr. Patten's address. He describes the existing situation in post-graduate instruction in economics as unsatisfactory. He says just what he thinks is wrong with it, and he points out the remedy. I submit that no one but a profound optimist would have had the courage to do that. He contrasts the ideal which is represented by voluminous dissertations with an ideal represented by the capacity to do some definite useful work. He thinks that the wider acceptance of the latter ideal would have a refreshing and beneficial influence on our work with candidates for higher degrees. In taking this ground, and in supporting his position by the considerations which he has urged, he does not seem to me to have laid himself open to a just charge of pessimism.

THE THEORY OF COLLECTIVE BARGAINING.

J. B. CLARK.

Are trade unions a proper part of an industrial system based on freedom and competition? Do they perfect such a system or vitiate it? This is the most important question we can ask concerning them, and the answer depends on the effect they have on the general rate of wages. We may regard it as an accepted fact that there is a standard to which wages tend to conform, and that this standard is in some way based on the productive power of labor. At any one time an absolutely perfect static adjustment would give men as wages whatever the product imputable to their labor is worth. Do unions help to bring the pay of laborers generally nearer to that standard? This is the question to be answered.

Monopolies on the side of capital are obviously a perverting influence, the effect of which extends throughout the labor market. They force some men out of their natural fields of labor, congest other fields and cause the so-called "marginal increment" of social labor to produce less and get less than it should. It is almost equally apparent that, in so far as the general body of workmen is concerned, monopoly on the side of labor has the same effect. If trade unions should fence their fields about and keep out all rival workmen, they would cause a similar overcrowding of those other fields of employment to which the excluded men would have to go. This would push downward the margin of employment into less fertile fields and reduce the product to which the pay of general labor tends to conform. Its effect would differ from that of monopoly on the side of capital only in the fact that a favored class of laborers would get the

benefit of the policy. This class would create a monopolistic gain and absorb it for itself, while all other laborers would pay tribute.

Monopoly of every kind is a perverting influence, and if collective bargaining, in order to be successful, has to resort to it, it may be pronounced abnormal without further discussion. Our main inquiry would then be answered at once in the negative. In this discussion, as in others, I am careful to characterize as normal only that which is in harmony with the fundamental tendencies of a competitive system. The question which merits discussion is whether a union of labor which makes no attempt whatever to gain a monopoly of its field can materially help men to get as much as the true standard of wages requires. By possessing a good field of employment and driving others out, a few men can get more than this and force others to take less. The problem is whether non-exclusive unions would help labor generally to get what natural law calls for.

A monopoly on the side of labor requires both closed shops and what we may call closed unions. It does not exist where any man, whether in the union or not, is permitted freely to work at his trade under any employer, and neither does it exist even under the régime of closed shops, provided there is nothing whatever to hinder the man from joining a union. It is where he cannot work without joining the union and cannot join it except under hard conditions that he suffers from the presence of a true monopoly. The question before us assumes that these two conditions do not exist. Our study has to do with unions which may have become large and powerful, but have made easy conditions of membership. Under such circumstances, how much power have they to raise the pay of members, above what it would

otherwise be, and how does their action affect other workmen? Can they remove any important cause of depression and cause wages generally to approximate their natural level? This is asking whether unions, as now constituted, can afford to surrender the use of force in guarding their fields against rival claimants. Will they fail to attain their purpose if they quit "slugging"? Of course, this practice injures the workmen against whom it is employed, and, if it is successful, may benefit those who employ it. It is well to know whether the abandonment of all criminal practices would leave union men helpless and subject them to an exploitation by employers. The answer to this question will tell us where the mere enforcement of criminal law would leave unionism.

The strike, sometimes resorted to and at other times held as a possibility, is an indispensable part of collective bargaining. To many minds it is a foregone conclusion that strikes are comparatively impotent without violence. Just as laborers, taken one by one, may be forced by their necessities to accept low pay, so a considerable union of men may be forced to take it if the employer is allowed freely to call in the services of other men. As the single worker may be kept out of employment until hunger compels him to take whatever he can get, so there is no reason why a body of men, if it be kept out of employment long enough, may not be reduced to a similar surrender. The union that is without the power to expel intruders from its field of labor appears to many persons to be at a hopeless strategic disadvantage. It needs a power of coercion, which amounts to the power of monopoly, in order to protect its members from this fate. Without the power to dissuade would-be strike breakers by arguments of a material kind, a strike is conceived of as a test of endurance in which the employer is bound to

win. Men never can get on without pay as long as employers can get on without interest or profit. What is called "slugging" is, in some minds, legitimated in a quasi-fashion, as being an indispensable means of preventing an exploitation of labor. The natural course of a peaceful strike is thought of as including, first, the gradual filling of the strikers' places by men who have been idle long enough to be helpless, and, secondly, the holding of the strikers themselves long enough in idleness to starve them into a surrender.

It may be said, at the outset, that fixing the pay of labor by a crude contest of endurance is without question abnormal. What pay-exhausted men will take is a question which never should figure in an adjustment of wages except as furnishing an unreachable minimum. It is not necessary that the refraining from violence should leave unions helpless. Peaceful collective bargaining should not and does not afford the dismal outlook of a choice between crime and failure.

There are two extreme limits within which wages, as fixed by collective bargaining, should fall. Of these extremes the lower is the one which necessitous men can be forced to take, and the upper is the utmost that employers can concede without steadily trenching on capital. Somewhere between these limits lies the point at which collective bargaining should adjust wages; and the process should be without any immediate reference to the ultimate endurance of the parties. The employer should be impelled by his own interests to offer what men are impelled by their own interests to take before either party is near to the point of exhaustion.

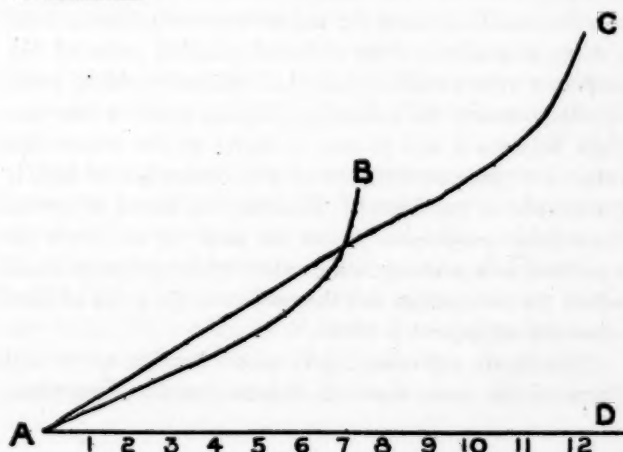
Adjustment by a fight to a finish is one thing; adjustment by a rational estimate by each party of his own gains and losses is another. Where it is easy to starve

men into a quick surrender the two methods merge into one, since the power to obtain a quick victory then enters directly into the employer's computation of his own interests. The adjustment is normal, however, only when the employer's assent to it is brought about by considerations which prevent him from resorting to his ultimate power of compulsion. This requires indeed a considerable staying power on the men's part; otherwise the pressure that should affect the employer cannot be brought to bear. The union treasuries, subsidies from affiliated unions, and the savings and the credit of the workers themselves should amount to enough, all told, to enable the men to remain for a certain time inactive, and thus to offer to the employer the alternative of conceding something to them or losing more by idleness. If the laborers can, even at much sacrifice, put the employer where it is better to start production on the terms they offer than to delay for the sake of better terms, a reasonable bargain may be made.

Where monopoly figures on the employers' side, a change in the prices of the goods produced in this branch of industry becomes an element in the adjustment. Any long continued stoppage of work raises prices and throws on the purchasing public the cost of any advance made in the rate of wages. While this may facilitate an ultimate settlement, it may lead employers to prolong the period of idleness, and so give them, at last, the upper hand of the men. Men may gain when monopolistic employers settle with them quickly and charge the cost to consumers; but by a long strike the employers may be the only gainers and are quite likely to be the chief ones. They may tolerate a strike or even foster it, sell off their accumulations of goods, ensure enhanced prices for them, and settle the strike at last when the workers' means are

exhausted and small concessions or none at all need to be made to them. On the other hand, with adequate staying power the men may extort some advance in pay, but it is unlikely to equal the gain which enhanced prices give to employers who have an exclusive possession of their field of production.

The case here selected for study, however, is the one where neither employers nor workmen have a monopoly, and where, therefore, this process of taxing the public and sharing the proceeds is ruled out. The strike, we will say, is general in the industry and brings production to a stop. There may then be a transient rise in prices and this may slightly reduce the cost which the strike entails on the employers; but a permanent rise, which would play decisively into employers' hands, is not to be expected. Furthermore, this is a case in which the motives that sway the parties proceed from a cool calculation of interests and not from that kind of class consciousness which means belligerent feeling and a fight for its own sake. There is here no entanglement of trade unionism with the militant type of socialism.



In the figure, AD measures time in months, and the lines radiating from A indicate, by the increasing extent to which at different points they rise above the line AD, the growing aggregate losses which accrue as the strike proceeds. The vertical distance from 3 at the base of the figure to the line AB measures the total amount which labor has lost at the end of the third month. The part of AB which rises steadily above the base line shows what the employer loses from month to month from mere interruption of business; and the corresponding part of AC shows, by its uniform rise, what the men lose, in wages, from the same cause. The sharp upward curves express further losses which are later incurred. At the beginning of the seventh month goods of the kind made in this industrial group begin to come into the market either from abroad or from new sources at home. At the end of the eighth month this loss of control of the business field begins to become a serious menace. As rivals freely enter their territory, the interest of the employers strongly impels them to make concessions to their men, and if, as the figure indicates, the employees can, without too great sacrifice, hold out until the end of the tenth month, their victory is assured. *The enforced yielding point of the employer comes earlier than the enforced yielding point of the men*, and his voluntary yielding point is intermediate between 0 and 7, and is nearer to the one or the other according as the rate of pay demanded of him is reasonable or exorbitant. Whether the terms of settlement favor employers, favor the men, or are made on even terms, depends upon the extent of the pressure under which the two parties find themselves at the point of time when the settlement is made.

This figure expresses a first approximation to the full facts of the case, since the losses described are those

which are measurable in money and, *as an incentive to yielding*, money losses themselves acquire increased effectiveness in the later stages of the strike. The principle we are illustrating is not less apparent where this further consideration is taken into account.

The timing of the concession which ends a strike is affected in the case of either party by the extent of the demand made by the other. A great concession can be extorted only by a great pressure, and this can usually be applied only in the latter period of a prolonged strike. When a grave injury would be brought upon themselves by further warfare, employers or employed can afford to pay a large price for peace. It takes an exceptional staying power on the men's side to extort this large concession from employers. As it continues, month after month, a strike takes on a more and more critical character. If the two upward curves in the figure chance to occur nearly together—that is, if the pressure on both parties becomes severe at the same time—the stakes which they are playing for become startlingly high, and each party may stand to gain or lose so enormous an amount that the struggle may become desperate. The men may then carry to the bitter end the contest of crude endurance. They may hope to hold out till, in spite of their large demands, the employer's yielding point shall be reached.

The yielding point of the employer comes late when the demand is exorbitant, and should come early when it is reasonable; and, when the wages asked for conform to the marginal productivity of social labor, the yielding should occur either in advance of a strike or in an early stage of it. In conditions which in a prosperous country usually prevail, there is small prospect that the employer can long enforce a much lower rate, nor can he secure it

even temporarily, except by a long and costly strike. Other employers will pay the rate that represents the marginal product of labor, and if the present employers of the men refuse to do so, the refusal will mean a loss of traffic with no offsetting gain. In the end they will have to pay this rate in order to hold the men whom they secure at a somewhat lower one.

The favorable issue of a strike requires that the places vacated shall not, in fact, be filled by non-union men; and, as we exclude the supposition that the strikers will forcibly prevent them from being thus filled, we must suppose that there are not enough available men outside of unions to fill them. The absence of an ample supply of competent labor quickly obtainable is a condition of success. The supposed great force of capable men disciplined by hunger into submissiveness does not exist; and, with all the shortening of apprenticeships which modern machinery has caused, it still takes some time to train men for artisans' work. Wholly unskilled labor would be wasteful, and, with a union embracing nearly all of the men at present trained for the crafts, employers cannot afford to incur much delay in trying to avoid paying wages that are normal and in a period of progress likely to be conceded by those employers whose operations are enlarging.

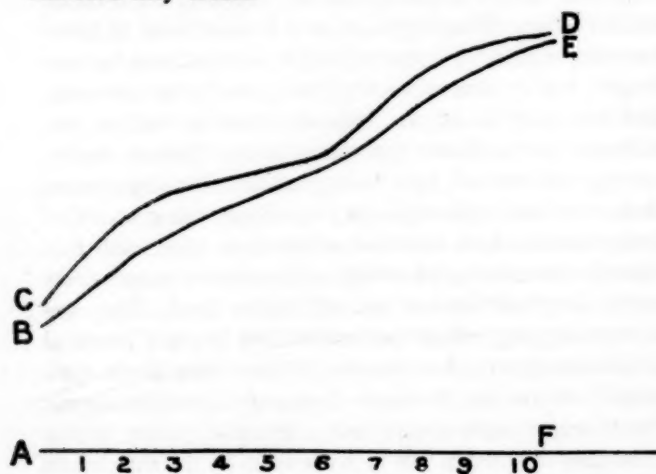
Where labor unions are strong and widely extended, and where they are judicious in their demands, an anticipation of the result of a strike usually brings the concession without the use of the last resort, the actual strike itself. The more effective strikes become potential rather than actual. A wide extension of the organization of labor, insight on the part of leaders, and a like insight on the side of employers should keep them in this latent state. With too large a part of the force of labor unor-

ganized, there is a real danger that there may be too many actual contests of endurance. The organization of labor, therefore, needs to become general in order that it may do its full work and do it in a lawful way. In its many branches it must include the bulk of all labor available to do work requiring skill. There must not be outside of the unions any source from which a very large force of trained workers can *at once* be drawn.

It is time that we see how these principles work when industry is in a progressive state. In such a condition wages tend toward a level which is always above the existing marginal product of labor. Improved methods of production are constantly introduced, and this imparts to labor a *potential* productivity which always exceeds its actual productive power at the margin of employment. After a particular device has been utilized and the product created in one fortunate employer's shops has been raised above the average level, time is still required before the full effects of the improvement are realized in the broader field of labor. When they are so it is found that all labor has made a gain. Its product and its reward have become larger; but an interval of time has passed after the original introduction of the improved method before this diffusion of its fruits has taken place. Actual wages, during this interval, have been gradually climbing toward their new level; but while they have been doing so, other improvements have occurred which have raised still further the potential productivity of labor, and wages climb on toward their further and still higher level. They are always lagging behind the standard set by their potential productive power; but they are always rising above their actual returns in the more ill-equipped establishments. Each single improvement sets a standard, which in due time they will reach. It is more than, at the time of its

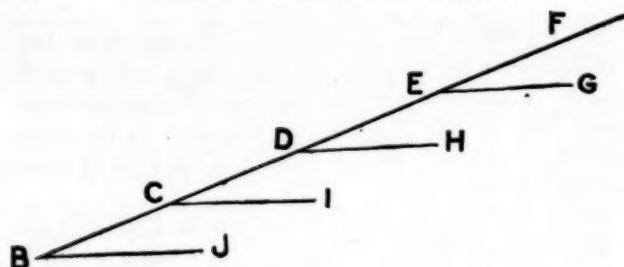
appearance, they are getting, but is less than the still higher rate which, by the time they attain the standard, further improvements will have made possible.

This diffusion of benefits from specialized improvements requires: first, that all employers in the same branch of industry should ultimately adopt the appliance, or an equally good one; secondly, that the physical output of goods which this group makes should be increased; and, thirdly, that by a change in ratios of exchange the values of those products which other labor creates should rise. A specialized productive power is thus translated into an enhanced value imparted to the product of all labor, and furnishing a new standard of wages. When improvements come in quick succession, the standard rises rapidly; and, as the rise of the actual pay cannot instantly be quickened, *the interval between the standard and the pay becomes wider*. As the improvements accrue more slowly, the actual rate of pay draws nearer to the standard they create.



AF represents time in decades. The ascending line CD represents the standard of wages rising with unequal rapidity in different periods. The line BE represents the actual rate of pay pursuing the standard in its upper movement, although farther from it at the time of rapid rise than at other times.

Under such circumstances, the evil to be dreaded is not a wide interval between wages and that norm which is set by the potential productivity of labor. It is an interval made broad not by the welcome and hopeful cause of such a quick rise in this standard of pay, but by disabilities on the part of laborers which prevent actual wages from pursuing the standard as closely as they should. In a time of rapid progress a large but law-abiding union of laborers may almost surely preclude this special evil and procure as close a conformity of wages to their rising standard as the interest of laborers requires. The progressive condition is one in which labor is in brisk demand at many points; and, although here and there a few men may have to change their occupations, they do so in a market in which wages are firm, as labor yields an increasing product to its employers. In the absence of untoward circumstances, few efficient men will be long without work and very few are likely to be reduced to the helpless condition of a force long held in idleness. The pay of some of the men is forever rising above the actual product of labor in a certain marginal part of the field; for there are always inferior establishments in which employers can barely pay what labor has heretofore produced, and cannot pay what in the better equipped establishments it is now producing. Their owners soon must either close the shops or give them a better equipment and promote them to higher positions in the scale of productivity.



A ————— K

AK is the line from which the products of labor are measured, and BF represents, by its rise above this base, the differing amounts which labor produces in different establishments of the same kind. BJ is the level of productivity as attained in marginal establishments, and there is an active demand for labor in the better ones, which will soon raise its pay to the level of the line CI. The marginal mills, etc., will then be closed, and those in which the product of labor stands at the level CI will then be the marginal ones. When further improvements have carried the productivity of labor to the level DH, the mills, etc., where labor can create only the amount expressed by the level of CI will have to be closed, as will the still better ones when the product reaches the standard EG.

The pay of men in the better establishments is not held down to the products created in the poorest ones, but is, in consequence of technical changes, raised continually above that amount. It is near to this marginal product of social labor only because the mills, etc., on the margin cannot long run at all after their laborers have ceased to

produce as much as other laborers get. Rising pay causes the social margin of employment to recede and the rate of pay at the shifting margin to rise. It creates, in fact, a series of different margins, any one of which shows a rate of pay below the new social level. All this makes easier the task of collective bargaining and removes the necessity for resorting to violence. On the other hand, it makes it necessary that the organization of labor be made far more general than it has yet become.

Conclusions which are now in sight and could be fully proved by a more extended treatment are:

1. In conditions which economic science calls dynamic, a continual rise in the standard of wages is caused by the increasing productivity of labor in the better establishments. There is a norm furnished by the productivity which recent improvements will, after an adjustment, impart to general labor.

2. Actual wages pursue a rising series of such norms, but remain, by an interval, below them.

3. The interval is greatest when technical progress is most rapid, and smallest when the progress goes on most slowly.

4. A complete closing of the interval between pay and standard would imply a halt in progress and the loss of all prospect of a further rise in wages.

5. It is one object of organization of labor to prevent the interval between pay and standard from becoming abnormally broad because of any disabilities of labor in connection with the making of its wage contract.

6. This aim is attained if the actual rise of pay which workers get in some establishments is quickly shared by the general body of workers elsewhere employed. It is to diffuse what would otherwise be localized benefits accruing from progress and to ensure for

men generally what some men would, without union, quickly get, and others would get more tardily.

7. This purpose is attainable by unions that are large, wisely directed, and entirely law-abiding. The interest of employers having increased facilities for production prompts them to secure profits by an early enlargement of their output, since a later enlargement would not afford the profits. A union which threatens to withhold needed labor puts pressure on the employers at once. If a strike actually ensues, provided that the laborers' demands are within reason, the employers' yielding point comes far within the limit set by the forced yielding point of the workmen. An anticipation of this result makes a merely potential strike effective.

8. At a rate of pay that is slightly above the existing marginal product of labor, the progressive establishments can absorb the labor that is relinquished by the unprogressive ones. At a higher rate, less labor can be absorbed and more is relinquished. The success of a *general* system of labor unions requires such an adjustment of its demand for increasing wages as shall not lead to an increasing amount of unemployment.

9. In the period of depression following a business crisis, it is the true policy of a general union of laborers to adjust its claim for wages with especial care to the marginal product of labor. Otherwise it may, at a critical time, increase beyond the amount which the conditions of the times entail the number of men out of work.

10. It is for the interest of a general union of laborers to conserve with the utmost care the condition of progress itself. No amount of organization can maintain a rise in pay that is not based on a rise of general productivity. A local and monopolistic union may discover transient reasons for reducing the product which a lab-

orer creates. A general system of non-monopolistic unions will not do this unless it is extremely unintelligent or carried away by a mania for conflict. If its intelligence is worthy of its size and power, it will realize the impossibility of drawing large general pay from a comparatively sterile industry.

THEORY OF COLLECTIVE BARGAINING— DISCUSSION

A. C. MILLER: I find myself in such substantial agreement with Professor Clark's leading proposition that I can hardly hope to perform the best office of the critic in opening this discussion. I begin by remarking that Professor Clark's paper is a welcome evidence of the changed attitude of the economists on the important question of trades unionism. From one of doubt or denial that attitude has, in the course of less than a generation, become one of tolerance or approval. Few economists of the present day would question the economic legitimacy of trades union action, if directed toward the proper ends and restricted within the proper limits, as a mode of adjusting the terms of the wage contract or of settling other conditions affecting the employment of labor. The legitimacy of trades unionism is derived from the necessity of collective bargaining, under a system of competitive distribution, if labor is to receive its due portion. Indeed, so fully has the more careful study of the workings of actual competition, made in our day, attested this conclusion that the principle of collective bargaining may virtually be regarded as an implicate of the system of competitive industrialism. Competitive industrialism has given us trades unionism in much the same way, and for much the same reasons, as it has given us coöperative capitalism, or the trusts. The same sort of economic necessity which has brought organization at the top, for capital, has also forced it at the bottom, for labor. Collective bargaining is, after all, little other than the application or extension of the competitive business principle

to the market for the sale of labor. It should not be overlooked that the condemnation of the trades union (the means for giving effect to the principle of collective bargaining) involves indictment of the competitive industrial system; for it is a correlate of that system.

The conclusions here stated, it is pertinent to remark, do not depend for their validity upon the acceptance of any particular or peculiar theory of wages. Under any theory of wages which could hope to find adherents amongst present-day economists, these interpretations would be true, if true at all. Under such a simple formulation of the demand and supply theory of wages as Cobden's—"wages are high when two bosses are running after one man and low when two men are running after one boss"—or under the highly refined productivity theory of Professor Clark, an analysis of the current business and industrial process, which did not blink the facts, would have to recognize that competition, of itself, does not equate pay and work with such nicety and precision that the intervention of such an agency as collective bargaining could be regarded as superfluous or obstructive. Such intervention when proceeding on the right line is to be viewed as the fulfilment rather than as the negation or arrest of the competitive process.

The time is happily passing when it was the fashion to speak of economic laws as though they were principles of mechanics. Human beings are not mere mechanisms, on their volitional side, at least, and the economics of the competitive system must be more than a mere mechanics of industrial liberty. The acceptance of the principle of collective bargaining implies all this. We dare not trust the laborer's destiny to the unaided workings of competitive laws. In a business age and under a business system where industry is undertaken by business men for

business ends, and where business strategy is an integral part of the general process, it must be said that, whatever else wages depend on, they also depend on bargaining. Economic laws alone—that is to say, competition—do not settle the matter. Still less do they act with electrical expedition. Competition, at best, simply sets the limits within which wages, or the other terms of the labor contract, will be fixed. Between the least the workmen will take and the most the employer will give there may be a pretty wide margin. We know there is a very considerable margin between their ideas of what the one should take and the other give. The adjustment of their respective claims to this indeterminate and fluctuating part must be effectuated by bargaining; and that means, looked at from the side of labor, collective bargaining.

Speaking in a company of professional economists much, or even all, of what has been said might seem unnecessary of statement. It is because I think the area for the operation of collective bargaining to be even wider than Professor Clark and the many who occupy his general theoretic economic standpoint would allow, that I wish to emphasize its validity as an economic principle, even under their peculiar theory of distribution. Professor Clark has won distinction by his brilliant championship of the economic theory of imputation. Now, without raising the general question as to the tenableness of that theory, I want to point out, as bearing especially upon the present problem, that "imputation" is an elusive term. It covers a multitude of psychologic phases—emotional as well as mental. It cannot be taken as a mechanical process, definable in simple and accurate form. Those who use it as a convenient formula to explain the operations of industrial life should, therefore, use it with caution and discrimination. "Product imputed" means product

imputed by *someone*. That "someone" is the employer. It is he who assesses the workman's service; and, unless we assume that employers as a class are an exception to the rule *humanum est errare*, it is at least conceivable and, therefore, a matter of theoretic moment, that the imputation might be based upon partial or faulty grounds. If so, it occurs to me that collective bargaining might have a special function as protecting the process of imputation against bias, greed, deceit, or other considerations of an adventitious character—considerations to be estimated as adventitions, at any rate, when viewed from the standpoint of *industry*, even though not so estimated when viewed from the standpoint of *business*. In other words, collective bargaining presents itself as a mode of putting the employer on his good behavior, as it were; of obliging him to make a more searching analysis of the full worth of labor to him; and thus becomes a method of more nearly securing to the laborer his due portion in industry.

The portion of labor in industry is what it gets. If, and only if, it gets *all* that it is worth can it be said, in any proper sense, to get its due portion—to get what it is worth. It would be truer as regards the ordinary issues of practical economic life to say that labor is worth what it can get than that it gets what it is worth; and the corollary of this proposition is for labor to get all that it properly can. This implies bargaining—bargaining with skill, vigor, and judgment. More than this, it means, specifically, collective bargaining. The individual, isolated workman is usually a poor bargainer. His habits of life do not fit him for bargaining. Besides, he usually cannot hold out for better terms; he belongs to the category of what are called in commerce "perishable goods." Adam Smith appreciated this circumstance when our modern industrial (wages) system was yet in its infancy: "In the

long run the workman may be as necessary to his master as the master is to the workman, but the necessity is not so immediate." That states the gist of the matter. The workman is ordinarily under economic disabilities which make him a weak bargainer. Concert of action thus becomes for him an economic necessity, if his disabilities are to be overcome or diminished. "In union there is strength."

Professor Clark has rightly drawn attention to the conditions of efficacious action on the part of labor organizations, and he has rightly emphasized the importance of a wide membership, power of endurance, and reasonable leadership. Violence forms no part of the machinery of effective and legitimate trades unionism. Where the above-mentioned conditions of efficiency are satisfied, violence is *prima facie* evidence of excessive demands, not warranted by the industrial situation; and, under these circumstances, failure is deserved. In other cases, violence is the resort of weak organizations or unscrupulous leaders, and merits little attention in a theoretical survey, unless the language of outspoken condemnation be allowed to be appropriate within the frontiers of economic science.

It ought not to be overlooked that the labor problem is made for us by progress. The perils which we dread in this connection come with our prosperity. Progress means change; and changing industrial conditions bring with them the ever-recurring need of new industrial adjustments. The stagnant civilizations of eastern Europe and Asia do not experience the unrest that disturbs us. And why? Because we are, in an industrial sense, the most active and progressive people on earth. Industrial unrest is one of the penalties of progress. What, at bottom and in a large sense, has supplied the leading motive

of that larger and more compact organization which has characterized the labor movement of this country during the past forty years? The conscious desire on the part of labor to secure what it regards as its rightful share of the fruits of industrial progress. The struggle is for the advantages of science and invention applied to industry. This is the fundamental issue in most of our great strikes. Such agencies as collective bargaining have, therefore, a peculiarly proper place and a peculiarly urgent function in a community like ours, where progress is the rule. It is worth noting that even an economist like Cairnes, who held the doctrine of the wages-fund in a specially rigid form and who shared the dismal view of his predecessors as to the general futility of trades unionism, conceded, nevertheless, that, in a time of rapid industrial expansion, trades unions might exert a considerable effect in accelerating an advance of wages. The more flexible views or theories held by present-day economists as to the factors governing the rates of wages under the competitive régime, and the forward movement of our industry, which we confidently expect to continue for untold ages to come, may well conspire, therefore, to give to collective bargaining a place of foremost importance as a detail of economic theory. For one, I want to record my obligation to Professor Clark for his able and brilliant discussion of the theoretical limits of collective bargaining, while at the same time, I must express the feeling that he has allowed his theory of imputation to lure him into too comfortable and sanguine an attitude on the question of the standard, normal, or reasonable rate of pay.

G. E. BARNETT: With the central proposition of Professor Clark's paper that a union of skilled workmen, by simultaneously ceasing—or threatening to cease—work,

can induce employers to yield an increase in wages beyond what would be paid in the absence of organization, no one, I take it, will have any quarrel. The thing has been done too many times to be doubtful. Even without that general organization of skilled artisans which Professor Clark considers one of the conditions of success, such unions have been able to establish rates of pay admittedly higher than would otherwise have prevailed. No one, I think, will disagree with the further proposition that under such circumstances as Professor Clark describes a trade union may raise wages somewhat without the use of violence.

If we consider Professor Clark's theory of collective bargaining with reference to its value as a practical guide to trade unions, serious difficulties appear. Professor Clark seems to believe that the normal wage can be determined at a given time with an exactness which will be of service in collective bargaining, for he warns trade unions that if the rate of pay is very much above the existing marginal product of labor, an increasing amount of non-employment will be caused. As a matter of fact, no one can determine, in any particular case, what the marginal product of labor is with an exactness sufficient to serve as a guide in bargaining. The experience of all arbitrators is that the attempt to determine a rate of wages for one trade by reasoning from the wages paid for similar classes of labor in other trades is likely to be unsuccessful. No one can say, for example, that in the iron-moulding trade, \$4.50 or \$5.50 is the rate of pay which would be established under perfectly competitive conditions. The reason is, of course, that the conditions in each particular trade determine very largely the rate of pay. The mobility of labor from trade to trade is much less in practice than in present-day economic theory. Again, Professor

Clark warns the unions that in a time of industrial depression they should take care to adjust their claim for wages with especial reference to the marginal product of labor. But what is the marginal product of labor? If the bakers of Minneapolis have a wage of fifteen dollars per week, shall they refrain from demanding sixteen dollars on the ground that fifteen dollars is the marginal wage?

As an attempt to indicate the place which collective bargaining fills in a system of industry based on freedom, Professor Clark's theory appears inadequate. He assumes, not only here, but in his other writings as well, that the function of a system of collective bargaining is purely and simply to raise wages by substituting collective for individual bargaining. Such a theory excludes two essentially characteristic features of a system of collective bargaining as distinguished from one of individual bargaining.

In the first place, practically all trade unions which have more than an ephemeral existence seek not merely to establish higher wages by collective action, but also to maintain rules which will have the effect of raising wages by diminishing the severity of competition within the trade. There are very few unions which do not include some such regulation among their primary aims. The larger and stronger unions, having established such rules, are not often forced into serious conflicts over mere questions of wages. These rules are of two kinds,—monopolistic and non-monopolistic. For example, a trade union may limit the number of apprentices severely, so that the competition of employers for workmen will, of itself, raise wages with only the slightest pressure from the union. But rules of a non-monopolistic character are also frequent. For example, the printers' unions main-

tained for many years strenuously, as one of the chief safeguards of their standard rate, that an employee must be given a fixed number of hours' work on each night or day he was engaged. By this rule it was made impossible for the employers to hold in their offices an excessive number of workmen. Many of the trade-union rules which regulate methods of remuneration, continuity of employment, and conditions of hiring and discharging have similar aims. The extent and variety of these rules is larger than is ordinarily supposed. By these regulations a trade union establishes a régime under which competitive forces work in such a way as to raise wages. The trade unions recognize that the cause of the large differences in the wages of essentially the same class of workmen which exist in the different trades, is to be found primarily in conditions in the trades which restrict, or heighten, the competition of the employers for the work people. The struggles, such as Professor Clark speaks of, for a mere raising of wages by concerted action, are usually to be found in those unions where the conditions in the trade are such as to depress the wages of the workmen much below the rate of pay prevailing in other trades for workmen of a similar character. In such trades unionism does not ordinarily flourish. Strong unions exist in those trades in which, by a series of rules, competition is made of itself to bring to the individual workmen a higher rate of pay, and the action of the union in increasing the standard rate is almost perfunctory and a matter of course. Professor Clark's illustration of a union of skilled and disciplined unionists standing out for seven months solely on a question of wages is one which he can hardly have drawn from life.

The second—and more serious—objection to such a theory of collective bargaining is that it neglects the fact

that in all except the most weakly organized trades the collective bargain, tacitly or explicitly, covers many things besides wages. The labor contract involves many elements besides wages, and the trade union aims to exert an influence over all the terms of the contract. Individual bargaining is far more effective in matters of wages than in any other element of the wage contract. Hours, sanitation, power of discharging,—these can only be determined in a collective bargain. Collective bargaining thus covers points in which individual bargaining is almost entirely ineffective. The primary difference between collective bargaining and individual bargaining lies rather in the terms covered than in the mere difference in competitive strength. A man may stand out perhaps for an extra dollar per week on his own merits as a workman, but it would be quite hopeless for him to demand for himself an eight-hour day, or the cleaning of the factory. Even competition between employers goes a very little way in this direction. Here and there, to attract especially desirable workmen, an employer may alter some other term of the labor contract than wages, but the custom does not spread through a whole trade. Competition is most effective, except in rare cases, in terms of wages. The ordinary workman will not willingly forego for himself as an individual a higher wage for shorter hours or for better sanitary conditions. But the union when it bargains covers these non-monetary terms of the wage-contract.

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The point can be illustrated in terms of Professor Clark's theory. Let us assume that the progressive establishments are paying something higher than the marginal wage and that conditions are favorable to a demand for a higher wage. Professor Clark assumes that at such a time the union would ask for an increase in wages,

but, in trade unions as actually conducted, this would not necessarily be the case. The union has a choice of several, perhaps many, different ways in which it will take its share of prosperity. Collective bargaining is thus formative of the conditions under which industry is conducted. Individual bargaining is rarely so. The line of progress becomes in collective bargaining a matter of election. Shall the increased product take this form or shall it take that?

A very large proportion of the conflicts between employers and unions occur over rules of the union which have for their end one of the two aims noted,—either to establish in the trade competitive conditions which will give a higher rate of pay, or rules which express the view of the union as to the conduct of the industry in its relations with the employers as to the length of working hours, sanitation, hiring and discharging. It seems fair, therefore, to say that a theory of collective bargaining which takes into account merely the direct influence of trade unions on the determination of wages is true only for poorly organized unions.

T. S. ADAMS: With the practical import, the empirical implications of Professor Clark's paper. I find myself for the most part in hearty sympathy. Moreover, I think they would be thoroughly acceptable to practically all modern economists and almost all labor leaders. The fundamental economic doctrine, however, from which his conclusions seem to be derived, and in terms of which they are expressed, appears to me far more questionable, and to that doctrine, the so-called "productivity theory", I shall confine my remarks.

During the past fortnight I have had the opportunity of listening to a protracted series of negotiations between

the representatives of a great railroad and the representatives of four great railway brotherhoods. One of the most striking figures among the representatives of the railway was an official known as the "Supervisor of Pay". As I watched the subtle skill with which he resisted the demands of the employees, I occupied myself with an effort to harmonize this official and his functions with the requirements of the productivity theory of wages. It was evident that as he succeeded the representatives of the men failed, that as his value to the company increased the wages of the men decreased, that as his "productivity" waxed the "productivity" of the men, at least to themselves, waned. Any positive "productivity" which this official possesses involves a minus "productivity" on the part of other employees. His "productivity" to the company rests upon the commercial gift of buying labor cheaply. His function in the railway business is a permanent and "normal" one. Why, I asked myself, cannot the other employees—"normally" and permanently—increase their own "productivity" by learning to sell more advantageously? And, I was forced to conclude, the productivity theory, if it is to be logical and consistent, must adjust itself to the idea that a man or body of men can increase their "productivity" not only by developing their skill or their command over the technical processes of production, but by haggling and bargaining, by learning how to extract from a purchaser every cent he can afford to pay. The elements which go to make up the successful "producer", which make for "efficiency", in the complex industrial world of today, are too varied and numerous to exclude from them that element of barter or bargain by which so many men make their living.

If we admit all this, then it follows immediately that any organization of employees capable of increasing their

wages by an amount in excess of the cost of maintaining the organization, increases the net "productivity" of its members to themselves and thus justifies its existence. This conclusion, I say, follows immediately. There is no reason for long discussions and an involved theoretical apparatus to answer Professor Clark's central question: "Are trade unions a proper part of an industrial system based on freedom and competition?" They are just as proper as foremen and pay clerks, just as "normal" as the division of labor, just as legitimate—and will probably endure as long—as the wage-system itself.

What I have been saying up to the present time rested upon the supposition that we are to retain and use the productivity theory. In my own opinion, however, it would be far better to abandon the theory, and particularly its nomenclature. As soon as we admit that bargaining skill constitutes a possible element in "productivity", that moment we admit that an unscrupulous employer who systematically preys upon the weakness and ignorance of his employees has "earned" or "produced" these illicit gains; we are driven on logically to the conclusion that a man's "productivity" is measured by what he gets; and the productivity theory becomes a mere assertion of identity—whatever is, is—with a dangerous predisposition to degenerate into the dogma—whatever is, is right.

Would it not be far better to abandon the whole theory, with its alluring imagery of productive "norms" forever floating before and forever eluding "actual wages", and simply admit, in the customary language of this earth, that a man who can drive a good bargain gets more for his wares or his skill than a man who cannot; that laborers are proverbially poor bargainers; and that to fortify their weakness they have devised unions, business agents,

secretaries, or walking delegates, to help them bargain effectively? Of course, some unions employ other methods which are questionable. But this one function gives to the trade union not only a legitimate, but a permanent and "normal" place in any industrial society based upon a competitive wages system. If all this is true, why mystify the function of the law-abiding union by explaining it in formidable terms and ambiguous formulæ?

Let me take an example from the paper under discussion. "In the period of depression following a business crisis", says Professor Clark, "it is the true policy of a general union of laborers to adjust its claim for wages with especial care to the marginal product of labor. Otherwise it may, at a critical time, increase beyond the amount which the conditions of the time entail the number of men out of work."

Now I ask what real meaning has such an injunction beyond that conveyed by the time-worn union maxim: "Don't strike for an increase of wages in a falling market." What guidance can the "marginal product of labor" offer to the labor leader who in a period of depression is anxiously seeking to discover the best policy for his union. He knows perfectly well that if everybody in the trade is to work all the time, wages must come down. But he knows quite as well that, wages once down, it will be a difficult job to get them up again; and he is not unlikely to conclude that the wiser course is to insist upon the old wage and have his followers work part time. In the latter case the marginal product of labor is kept relatively high by deliberate limitation of the supply of labor. In other words, the conscious action of the trade union is a powerful factor in determining what the "marginal product of labor" shall be. Why, then, speak of it as an objective point, a fixed star by refer-

ence to which the pilot of the trade union in a stormy sea can always compute a true reckoning? As a matter of fact, it has no such fixity. It is a mere sign, an index, a moving finger obediently following our old friends, "demand" and "supply". The productivity theorists insist upon our studying its insignificant waverings, when what we should be studying are the significant factors in obedience to which it moves. To refer the labor leader in times of depression to the "marginal product of labor" is something like mockery.

I am perfectly well aware that economic theory is not devised for the sole purpose of solving the practical problems of labor leaders. I am only calling attention to the fact that the productivity theory is playing a prominent part in emasculating economic theory of the present, in making it superficial and unreal. I may illustrate by another reference to the paper under discussion. The backbone of the paper consists of an analysis of a hypothetical strike in which, to use Professor Clark's words, "the motives that sway the parties proceed from a cool calculation of interests and not from that kind of class consciousness which means belligerent feeling and a fight for its own sake". This selection of premises illustrates perfectly the danger of the kind of theorizing which I deprecate. It is substantially true to say that there never was an important strike in which "the motives that sway the parties proceed from a cool calculation of interests". Trade unionism is built upon an instinct or *feeling* of solidarity, that can never settle down into cool calculation. I am aware that to theorize profitably we must first clear the way by abstracting certain elements of the problem. But we must not abstract the major elements. It is perfectly legitimate in studying the laws of gravitation to assume that there is no air, and on this hypothesis

compute the rate at which bodies would fall in a vacuum. But such an assumption is not permissible when we are studying ballooning. We must have approximations, at least, with which to start.

C. W. DOTEN: The paper by Professor Clark opens up the whole question of the distribution of wealth. One might go even farther and say that in order to discuss this paper adequately it would be necessary to compass the whole field of economics. But it is manifest that in a ten-minute paper many things must be taken for granted or allowed to go by default. I shall therefore confine my attention to two or three points which to my mind are the most significant.

Owing to the splendid work of Professor Clark and others who have followed his lead, the marginal productivity theory is now as well known and as generally accepted as the "wage fund" theory was a generation ago. We are especially fortunate, therefore, in having one of the, shall I say, discoverers or inventors of this theory expound to us in such an able and convincing manner the practical bearings of this theory upon one of the most vital and perhaps most critical of present day problems.

At first glance Professor Clark's conclusions seem to be a message of hope and good cheer to the organizations of labor. Are they really so? He certainly recognizes and emphasizes their utility in securing for their members a larger share of the product of industry than they would otherwise obtain. This certainly seems to give greater encouragement to labor organizations than the conclusions of the economists of the old schools, who declared that such organizations were not only impotent but useless. But when carefully analyzed it appears that the only function of the union in this connection is the secur-

ing to its members at an earlier date what natural law would ultimately give to them, and what the older economists assumed that they would necessarily get without combination.

Professor Clark's whole argument is, it seems to me, a tacit, if not an explicit, acknowledgment that labor has been and is now being exploited. His only word of encouragement, then, is that combinations of laborers, if strong and well organized, may diminish the amount of this exploitation and "procure as close a conformity of wages to their rising standard as the interest of laborers requires". What does this really mean? If I understand the matter aright, it means that what has all along been assumed to be a natural law of wages is merely an ultimate and unattainable limit. It means that laborers must not only earn their wages, but fight for them.

And in order to be successful in this fight for the "imputable product" of their labor, workingmen must form unions that are practically monopolistic. At this point I must take exception to Professor Clark's definition of a monopolistic trade union. A monopoly here, as in the capitalistic field, has two aspects, namely: (1) its treatment of competitors, and (2) its relations to purchasers of its products. It seems to me that the second is the significant thing. It is the real test of monopoly power. The first aspect is merely the method by which monopoly power is obtained.

I cannot see that it matters whether competitors (here non-union laborers) are driven from the field by violent methods or subjected to benevolent assimilation, so far as the fact of the existence of a monopoly is concerned. Professor Clark says (p. 33): "The organization of labor needs to become general in order to do its full work. In its many branches it must manage to include the bulk of

all labor available to do work requiring skill. There must not be outside of the unions any source from which a large force of trained workers can at once be drawn." I must respectfully insist that these requirements, when met, spell monopoly, whether arrived at by a policy of inclusion or exclusion. If we regard combinations in the industrial field which control fifty-five to sixty per cent of the product in any one line as monopolies, shall we not be obliged to acknowledge that a labor union that includes a large majority of all the workers in a certain trade has monopoly power in its dealings with employers?

I am inclined to think, therefore, that Professor Clark has applied too narrow a definition to the term monopoly, and that he has not proved his point that without possessing monopoly power in any degree a labor union can enforce its demands for higher wages.

One further point in the paper under discussion challenges attention. This, as it seems to me, is the crux of the whole matter. Must the laborers of the world always continue to bear the burden of progress? Such would seem to be the conclusion of Professor Clark, for he says, "a complete closing of the interval between pay and standard would imply a halt in progress," and again, that "it is for the interest of a general union of laborers to conserve with the utmost care the condition of progress itself." Must we agree with this conclusion that labor is the one factor of production which must be constantly exploited by the other factors in order that progress may result? This, if true, is a most serious indictment of our industrial system; but I cannot believe that a theory of distribution which leads us to such a conclusion is fundamentally right. I am ready to grant that the profits of entrepreneurs are frequently augmented by the retention of a part of the product rightfully belonging to labor. So

they are also by the exploitation of the ignorant and unwary investors of capital, as everybody knows. I am willing to grant that these facts are concomitants of progress; I am, however, loath to believe that progress is absolutely dependent upon the methods of frenzied finance or the schemes of predatory captains of industry.

On the other hand, I believe that it is possible for laborers, through strong organizations, to exploit the other factors of production. Those factors are not so delicate as to be destroyed by the first breath of adversity, neither are they so mobile or fugitive that they can escape at once when pressure is applied. I recognize, of course, the fact that if the earnings of capital are forced down too far it will destroy the incentive to save. Doubtless profits may also be reduced to such a low level that employers become discouraged, but I am not convinced that these limits are reached when labor has obtained the whole of its "imputable product".

I am sure we are all aware that too many automobiles may be quite as potent a factor in checking progress as too large wages.

ACCOUNTING.

ROUND TABLE DISCUSSION: W. M. COLE, *Chairman.*

W. M. COLE: It is worth while at the beginning of our evening together to note why the subject of accounting has been given a place on the program.

Ten years ago, if I am not mistaken, accounting was a part of the curriculum of no college in the country, except as one or two colleges extended their operations beyond the academic field and provided special training professedly more or less technical for the benefit of the communities in which they happened to be situated. To put this more boldly, no college in the country then offered any course in accounting as a part of its academic work, rating the study of accounting as a part of a man's general liberal education. Probably not one college student in the country was then studying accounting unless he expected to be directly concerned in the handling of books of account. Today a dozen colleges offer one or more courses in accounts and list these courses as of academic as distinguished from technical grade, and most of these colleges have added these courses within the last three years. A third of them have added accounting in the last year.

So far as the colleges are concerned, then, accounting is a new subject. As it chances, too, it is practically a new subject in the world of actual business. We have had the word "accounting" in common usage for many generations, but the thing that the word is now coming to stand for has been developed in the last twenty years, as a part of the general economic development of the last half century. Only within ten years has accounting come to take its place in any large number of establishments.

It has been commonly used only within the last three years. Even today it is practically unknown to the average business man.

It chances happily that in this subject is the economist's opportunity to show the man of practical affairs that economics is not mere theory. Accounts are the best common ground between the theorist and the practitioner. The business man has been remarking for years that the economist's theories are very much in the air. The economist has sometimes reciprocated the disrespect by implying that the average business man's notions are very much on the ground. In the field of accounting the business man is forced to rise to a scientific point of view, and the economist is brought down to the world of fact; so that the two men meet in a common atmosphere. When the economist by reading a business man's accounts can show the business man facts about his business which have never before been known, a closeness of touch is established between them. The thing is doubly impressive when the business man's son goes home, and, without technical training in the father's business, finds from the accounts, through his study of accounting at college, important facts that the father had missed.

A number of accountants and business men were recently talking over the field of accountancy and regretting that there was no adequate name to express the function of the professional accountant. One of them hit upon a phrase which is particularly happy in that it brings out exactly this common ground between the business man and the theorist, ground on which the accountant ought to dwell. He remarked that the accountant who does his work as it should be done might well be called a "consulting economist", because his work is similar in function to that of the "consulting engineer" and that of the "consulting chemist".

The demand for courses in accounting indicates that the public wishes teaching of this sort to be done. Those who are engaged in such education are especially favored. Here is a new subject of mental activity developing with practical men, needing the help of scientific men, intensely interesting to the public, and without traditions or legal handicaps. It is practically a new-born babe. We shall be very foolish if we do not study it while it is young—make ourselves a sort of child-study class, name it, classify it, forecast its future, and help to educate it. That is what we are here for tonight.

Three problems arise: first, shall the colleges teach it,—that is, what is the relation of accounting to general economics? second, what should be comprehended by the term accounting, or can we find a better term to express the thing? third, since in the growth of the demand for accountants technical professional training is becoming necessary, what is to be the future of that profession and what must be provided as training?

These things are not to be settled in a day. It is foolish to try to make up policies on *a priori* grounds. Our aim tonight is rather to focus attention on the problems than to solve them off-hand. The speakers whose names appear on the program have kindly consented to present these problems and to offer tentative solutions. Their purpose is rather to stimulate discussion than to argue for their own opinions.

ACCOUNTING IN ITS RELATION TO ECONOMICS.

MAURICE H. ROBINSON.

"Accounting," according to Lisle,¹ "is the science which treats of the methods of recording transactions² entered into in connection with the production and exchange of wealth, and which shows their effect upon its production, distribution, and exchange." This definition by one of the foremost Scottish accountants, while obviously incomplete, possesses the merit of calling attention to the fundamental economic principles upon which accounting is based. Whatever the definition adopted, there is universal agreement that economics is the general science of wealth. This idea is always present, although the phraseology differs. Sometimes economics is called "the science of industrial relations",³ or "the science of business activities", or "the social science of business".⁴

The two subjects are thus intimately related in that they each deal with the same subject matter, namely,—wealth, its production and distribution, together with the economic relations necessarily involved. Economics, however, differs from accounting in that it treats of the nature of wealth and analyzes the conditions under which it is produced and distributed among the members of society. It describes the process of wealth production, the conditions which facilitate the division of labor and ex-

¹ Lisle, *Accounting in Theory and Practice*, p. 1.

² The word "transactions" includes transfers of materials from one department of a manufacturing establishment to another, as well as those where an actual sale is effected.

³ Seligman, p. 4.

⁴ Seager, p. 1.

change of products, and the advantages of each; it asks the question—How is the wealth produced by society as a whole shared by the factors of production and the individuals who compose each factor? The answers of the economist to all of these questions are indefinite from the quantitative standpoint. He finds by historical investigation that wealth may be produced without the aid of capital; that, however, such a method is slow and inefficient compared with those where capital joins with labor and natural resources. The economist as such cannot tell how much more efficient. For this information he must turn to his co-worker in economic investigation—the accountant. The economist analyzes the process through which wealth, created by the coöperation of producing agents, is finally traced to the possession of individuals who make up the producing society. Here again he cannot tell how much goes or ought to go to any one class of claimants, or to any individual of a class. The accountant must be called in, and within certain limits he is able to measure the contribution of each factor of production and each individual composing each factor. He also is able to determine the share which each class of producers and each individual producer gets after the process of distribution is completed. By comparing these results he is able to answer the questions which are at the heart of the social unrest of all ages, namely,—Does the producer in a complex industrial society receive as a consumer the equivalent of that which he creates as a producer? As qualitative chemistry must of necessity precede and predetermine the conditions under which the quantitative chemist works, so the economist must first analyze economic society, differentiate processes, classify wants, determine the nature of wealth, trace out the intricate economic relationships in both production and dis-

tribution, and, from his analysis of an economic society and his observation of its workings, formulate economic laws.

Side by side with the economist, the accountant, working on the foundations laid by the economist in his analysis, attempts to determine the economic relationship of the members of an economic society with definite quantitative results. The economist finds that land assists in production in the form of rent. The accountant determines how much the land produces and therefore how much it ought to receive.⁵ The accountant also finds how much land actually does receive, and, putting these results side by side, the economic philosopher may then compare them and ask the question—Why are they not equivalent?—and answer it if he can. Applying the same methods, he determines the creative powers of labor and capital, and again finds the amount of their share in the actual distribution of wealth. In a similar way the economist may then discuss the relationship of the contribution of labor and capital respectively, in their joint production, to their shares in actual distribution. The economist may discover the reasons why one factor in production does not receive in any particular case an equivalent of the share it produces, and, having found the conditions that have brought about this maladjustment, he may advise

⁵ In actual practice, entrepreneurs bid against each other for the use of the more desirable locations and for the more fertile plots of land. Each with the aid of the cost accountant is able to determine with very great exactness the cost of conducting his business at any one of several locations. He is also able to estimate approximately the volume of business which he will be able to carry on and the prices he will be able to maintain. He therefore knows what he can pay, and the competition among many entrepreneurs in different lines of business forces the rent actually paid up to a point approximately equal to its producing power in the line of business where the land is most efficient. The accountant finds the limit beyond which the entrepreneur cannot go and be solvent.

statesmen and administrators in regard to the kind, nature, and amount of governmental regulation⁶ that is necessary to properly adjust such conditions and permit a more equitable distribution of wealth. It will be noticed that in the practical application of economic principles the economist is absolutely helpless without the aid of the accountant, and it is to be observed that the economists who have contributed the most to the abiding principles of political economy as accepted today, have in general been those who have tested their economic principles by the exact data which the accountant alone can furnish.

Accounting not only applies economic principles to economic conditions and determines from the quantitative standpoint existing economic relationships both in the production and distribution of wealth, but in turn furnishes the facts upon which economic laws are actually formulated. For example, the economist affirms that profits tend to be eliminated in the static state; this principle might possibly have been evolved in the mind of a theorist entirely unacquainted with business transactions and their accounts. It is, however, true that this statement is based upon actual accounting in a large number of business enterprises as observed by many economists

⁶Neither the Interstate Commerce Commission, the state commissions, nor the courts have any scientific basis for the regulation of railway rates in accordance with economic principles except so far as they adopt and apply proper methods of uniform accounting. The same is also true of public service companies in general, insurance companies, and banks. The work of the Bureau of Municipal Research has been fruitful in bettering city administration because it has applied scientific accounting methods in connection with the principles of municipal administration. For an application of the principles of accounting to a concrete problem in the regulation of railway rates, see an article by the author of this paper, entitled "The Legal, Economic and Accounting Principles Involved in the Judicial Determination of Railway Passenger Rates," in the *Yale Review* for February, 1908.

through an inspection of the data furnished by the accountant. The same statement may also be made in regard to some of the more recent contributions to the theory of capital, income, and monopoly profits.

In what has been said the attempt has been made to draw in rough outline the place that accounting will take in the future development of economic theory. Today, for various reasons, accounting falls far short of its possibilities in this respect. In the first place the economists have generally had neither the opportunity nor the inclination to master the principles and practice of accounting. They have, as a class, therefore, contented themselves with making general statements, many of which have been recast from time to time as the actual facts of business relations have been disclosed through the more scientific application of accounting methods; and the process is not yet ended. Secondly, accountants are not usually economists, and therefore their work, lacking the scientific character which the economist demands for his purposes, often has little of value to offer when cast in its present form. An income account, as usually drawn up, in which the various items are thrown together without reference to their economic character, is well nigh valueless for the purpose of determining the contribution of the economic factors to the income produced. The same is true of the other principal accounts which the accountant prepares for the information of the business house for which he is employed; and, finally, the accounts, being drawn up for the purpose of protecting the proprietor's interests, are naturally enough arranged to show only his capital, his expenses of production, and his net earnings. The economist whose chief interest in the cost of production is from the standpoint of society, often finds little in the books of a business enterprise to help him

in his work. An industrial society is, however, made up of individual business units, and the economist who is unable to grasp the inter-relations of these business units and to make the adjustments in the accounts of such business units as is necessary in order to make up the balance sheet and income account of society as a whole,⁷ neglects to take advantage of one of the most valuable methods for establishing economic principles and economic laws and eliminating the errors which the economists who rely wholly on abstract reasoning are liable to commit.

If the principles maintained in this paper are valid, it naturally follows that:

1. Courses in accounting should be established in each of the institutions of higher education by the existing departments of economics, thus maintaining the integrity of the two branches of the general science of wealth; and students who are looking forward to careers as economists, as well as those who expect to enter business life, should elect such courses, as a part of their economic training. Candidates for the doctor's degree in economics especially ought to be examined in the elements of accounting, for the reason that such an addition to the usual course compels accuracy in economic thinking, and again since it makes the theory of production and distribution clearer than is possible by the ordinary methods of exposition.

2. All accountants, and especially those who are granted the degree of Certified Public Accountant by states or by universities, ought to be trained in the principles of economics. Accounting being the application of economic principles to definite business transactions, it is obvious that if this work is to be raised to a level with the

⁷ See Fisher, *Nature of Capital and Income*, chapters on "Capital Summation" and "Income Summation".

learned professions those who enter this field must be masters of the principles which they are daily applying in specific cases.

3. The principal statements made by accountants, namely, the balance sheet and the income account, should be drawn up in accordance with economic principles,—that is, so that economic units of the same kind should be collected into the same group. For example, the balance sheet and income account would then be drawn up in the following form:

INCOME ACCOUNT			
Inventory, Jan. 1, 1908	\$ 1,000 00	Sales	\$15,000 00
Purchases for year	10,000 00	Less Freight Outward	
Total	11,000 00	and Discounts	500 00
Less Inventory, Jan. 1, 1909	1,200 00		
Cost of goods sold	9,800 00		
Freight and Express Inward	500 00		
Total Cost of Goods at Plant	10,300 00		
Earnings of Establish- ment	\$ 4,200 00		
	\$ 14,500 00		\$14,500 00
<hr/>			
Rent	16½ % \$ 700 00	Earnings down	\$4,200 00
Int. on Cap.	19½ % 800 00		
Wages	59½ % 2,500 00		
Net profits	4½ % 200 00		
	\$4,200 00		\$4,200 00
BALANCE SHEET			
ASSETS		LIABILITIES	
1. Investment in Land	\$10,000 00	1. Obligations to	
2. " of Capital		Creditors	
Buildings	\$12,000 00	Mortgage	\$15,000 00
Tools & Mach	2,000 00	Accts & Bills	
Merchandise	1,200 00	Payable	2,000 00
Accts & Bills		Total	\$17,000 00
Receivable	1,500 00	2. Proprietor's Interests	
Cash	5,000 00	Cap. Stock	15,000 00
3. Franchise	5,000 00	Undivided	
	\$36,700 00	Profits	4,700 00
			19,700 00
			\$36,700 00

This would enable business men to know what percentage of the cost of production was due to rent, interest, and wages respectively, and when therefore it would be more economical to increase the interest account by adding improved machinery rather than the wage account by adding more laborers. With the usual arrangement of the income account, this important fact is of course impossible to ascertain. At the same time, such an arrangement of the income account would enable economists to make use of the facts of business activities for the establishment of new economic principles or the correction of theories formulated without the aid of the facts which such statements would bring to light. In this way a gain to both economic theory and sound business principles would follow.

The evolutionary forces, especially active and persistent in business, are steadily bringing these highly desirable ends to a welcome fruition. The process is, however, a slow one, and I wish therefore to close this paper with the suggestion that this Round Table, the first formal gathering of economists and accountants in the United States for the purpose of engaging in a scientific discussion of the relationship of the two subjects and their future development, might render a signal service to both professions, and to sound business progress at the same time, by inaugurating a movement looking toward the fuller application of economic principles in the formal presentation of the accounts of business establishments.⁸

⁸The following problem from *Lisle's Accounting*, page 246, has been selected in order to further illustrate the principles above stated. The first solution by the writer of this paper shows, first, the earnings of the establishment as a whole, and, second, the distribution of the earnings to land, to capital, to labor, and to the entrepreneur interests. Owing to the lack of data that would have been available had the books been kept in accordance with the

Problem: The directors of a manufacturing company, before the closing and auditing of the books for the half-year ending December 31, declare out of the net earnings of the company a dividend for the half-year of 4 per cent on the preferred stock of \$40,000, and of 3 per cent on the ordinary stock of \$40,000. There has been brought forward from the last half-year an undivided balance of profit of \$1600, and after the audit of the books the trial balance is found to be as follows:

TRIAL BALANCE AS AT 31ST DECEMBER

Preferred Stock		\$40,000 00
Ordinary Stock		40,000 00
Sales		87,670 00
Bills Payable		10,400 00
Accounts Payable		4,000 00
Profit and Loss Account		1,600 00
Property and Buildings	\$13,000 00	
Plant and Machinery	16,000 00	
Patents and Goodwill	32,000 00	
Stock on hand, 1st July	11,600 00	
Purchases	33,000 00	
Wages	35,200 00	
Coal	2,400 00	
Salaries, general	4,400 00	
" management	2,000 00	
Insurance	350 00	
Repairs	400 00	
Discount and Allowances	2,500 00	
Freight	600 00	
Discount and Interest	300 00	
Cash in Bank	3,200 00	
Investments	6,200 00	
Miscellaneous Expenses	1,720 00	
Book Debts	18,800 00	
	<u>\$183,670 00</u>	<u>\$183,670 00</u>

methods proposed, it has been assumed that the term "property and buildings" includes land and any investment upon it which may properly be included under that title; that "plant and machinery" are capital in the limited sense in which that term is used; that "miscellaneous expenses" are in reality wages and therefore properly included under that head. In the problem and its solution the dollar mark has been substituted for the English pound. Since the company owned the land and furnished part of the capital invested upon it, an arbitrary rate of return has been assumed upon these investments.

The stock on hand December 31 is \$10,600. Prepare profit and loss account and balance sheet from the above, giving effect in the accounts to depreciation at the rate of six per cent per annum on plant and machinery, and an allowance of five per cent on book debts to provide for bad accounts; also create a liability in the balance sheet for the dividends declared as above stated.

The second solution by Lisle, while not drawn up in accordance with the best practice, is a fair example of the usual method of grouping the various items in the ordinary income account and balance sheet.

It will be noticed that the solution by the writer gives all of the information furnished by the usual method and in addition shows, first, what the establishment earns, and, second, the share of the earnings which go to the several factors of production. This would enable the statistician in the course of a few years to prepare exceedingly valuable tables for the guidance of the business manager in directing the affairs of the company.

**FIRST SOLUTION
BALANCE SHEET**

ASSETS		LIABILITIES	
Dec. 31, (t)	Capital Investment	Dec. 31, (t)	Due Creditors
(a) Cash	\$ 3,200 00	(a) Bills payable	\$10,400 00
(b) Mdse Inventory	10,600 00	(b) Accts "	4,000 00
(c) Accounts	\$18,800 00	Total	14,400 00
Less 5%	940 00	(2) Due Shareholders	
(d) Pit and Machinery	16,000 00	(a) Undivided Earnings	2,580 00
Less 3%	480 00	(b) Dividends half-year	1 400 00
Total	15,520 00	(c) Preferred Stock	40,000 00
(2) Other Investments	\$47,180 00	(d) Ordinary "	40,000 00
(3) Land Investment	6,200 00	Total	\$83,980 00
(4) Patents and good will	13,000 00		
	32,000 00		
	\$98,380 00		

GENERAL INCOME ACCOUNT

(1) EARNINGS OF ESTABLISHMENT		
July 1, Stock on hand		
Purchases	\$33,000 00	
Less inventory Dec. 31	10,600 00	
Coal		\$11,600 00
Freight		22,400 00
Depreciation		2,400 00
Repairs		600 00
Insurance		480 00
Cost of goods sold		400 00
Earnings of establishment		350 00
		<u>\$38,230 00</u>
		46,000 00
		<u>\$84,230 00</u>
	Dec. 31 Sales	\$87,670 00
	Less Disc. and allowances	\$2,500 00
	Less allowance for bad debts	940 00
	Net receipt from sales	<u>3,440 00</u>
		<u>\$84,230 00</u>

SECOND SOLUTION

PROFIT AND LOSS ACCOUNT FOR HALF-YEAR

To Cost of Goods :—		By Sales	\$87,670 00
Stock on hand, July 1	\$11,600 00		
Purchases	33,000 00		
	<u>\$44,600 00</u>		
Deduct stock on hand, December 31	10,600 00		
	<u>\$34,000 00</u>		
To Wages	35,200 00		
To Coal	2,400 00		
To Salaries, general	4,400 00		
To " management	2,000 00		
To Insurance	350 00		
To Repairs	400 00		
To Discount and allowances	2,500 00		
To Freight	600 00		
To Discount and interest	300 00		
To Miscellaneous expenses	1,720 00		
To Allowance for bad debts	940 00		
To Depreciation	480 00		
	<u>\$85,290 00</u>		
To Profit for year	2,380 00		
	<u>\$87,670 00</u>		<u>\$87,670 00</u>
To Dividend for half-year on preference shares	\$ 800 00	By Balance	1,600 00
To do. on ordinary shares	600 00	By Profit for half-year as above	2,380 00
To Balance	2,580 00		
	<u>\$3,980 00</u>		<u>\$3,980 00</u>

BALANCE SHEET

LIABILITIES		ASSETS	
Accounts payable	\$ 4,000 00	Book debts	\$18,800 00
Bills payable	10,400 00	Less allowance for bad debts	940 00
Due to shareholders :			<u>\$17,860 00</u>
Preference stock	\$40,000 00	Stock on hand	10,600 00
Ordinary stock	40,000 00	Investments	6,200 00
Dividend for half-year on preferred stock	800 00	Plant and machinery	\$16,000 00
Dividend for half-year on ordinary stock	600 00	Less 3 %	480 00
Undivided profit	2,580 00	Property and buildings	13,000 00
	<u>\$3,980 00</u>	Patents and good will	32,000 00
	<u>\$98,380 00</u>	Cash in bank	3,200 00
			<u>\$98,380 00</u>

A DEFINITION OF ACCOUNTING.

J. C. DUNCAN.

The object of this paper is to present a definition of accounting and not a definition of an accountant. In the first place the speaker wishes to call attention to the fact that he does not desire to limit the field of the accountant or the field of the science of accounting. The *Journal of Accountancy* of July, 1906, published an interesting article entitled "The Field of Accountancy", by Professor David Kinley. Professor Kinley sent fifty letters to as many practicing public accountants asking them to define public accountant. He received about forty different replies. In all of the definitions given it is evident that the accountant is expected to do more than one thing. In fact, he is looked upon as a person who has at his command a knowledge of a number of different branches of knowledge, namely, accounting, auditing, and commercial law. For lack of a better term, it seems that the practitioner has selected one branch of his profession to let it indicate the type of service he offers to the community. There would be just as much sense in calling a Certified Public Accountant a Certified Public Auditor as there is in calling him an accountant. A surgeon must know anatomy, physiology, hygiene, pathology, and a number of other branches as well as surgery before he may practice as a surgeon, but the title Medical Doctor means that he has obtained a sufficient mastery of those various branches to be intrusted with the lives of the people in the community.

The profession of General Business Adviser for lack of a better term has selected one branch of the many

services which it offers to the community and uses that branch to designate the entire profession. We cannot therefore make a definition of accounting from the types of services the accountant offers; neither would it be advisable for us to rename the profession, since it has such a distinct meaning in the business world at the present time.

The all-embracing services that the accountant undertakes have brought in their train an extremely vague idea as to what accounting in itself should include, and the examining boards of the various states give as indefinite an idea of the profession as one could hope to find. If we try to make a definition of accounting from the C. P. A. questions set by the various examining boards, we are confronted with a very serious difficulty.

An editorial in the *Journal of Accountancy* for July, 1906, makes the following statement: "It has long been a reproach to the accountancy profession in the United States that the examinations proposed for admission into the profession were exceedingly elementary and in no way comparable with the examinations for admission into the other learned professions. With few exceptions candidates for the C. P. A. degree pass the examinations in commercial law, auditing, and theory of accounts, generally with high marks. Very few, however, pass the examination in practical accounting. The reason for this condition is not far to seek. It is because the first three subjects are generally too elementary to be set as a condition of examination into a profession and because the examination in practical accounting demands of the candidate the working out of puzzles rather than the solution of problems. The problems themselves ordinarily present not the slightest difficulty provided the meaning of the examiners can be clearly determined. Their expression

is generally a matter of taste. A variety of methods are available, of which the examinee selects one, which may or may not suit the examiner."

This criticism, the speaker feels, is an eminently fair one for many state board examinations. In looking over the examinations set by the various states for a number of years past, it seems that many of the examining boards have defined accounting in their own minds as the science of lucky bookkeeping, and the holder of a C. P. A. degree is the lucky bookkeeper who has passed the state board examination. This may keep out of the profession a great number of people, but it is not a selective process and it does the profession no good to make such requirements.

In the first place, bookkeeping should be clearly set apart from accounting. Bookkeeping is the art of recording business transactions according to a logical plan that can readily be interpreted. It begins with the statement of the transaction, and ends when the transaction has been properly journalized and posted to the ledger and tested by a trial balance. Accounting should not concern itself with this division of work, although one must be thoroughly familiar with bookkeeping before he can hope to do accounting. Accounting begins where bookkeeping ends, and is not an art but a science.

A bookkeeper for a business, however, is not thereby strictly limited to making entries for the business and testing them by the trial balance. Unless he desires to become a mere mechanical clerk he should know sufficient accounting to make a loss and gain statement and a balance sheet. But bookkeeping, the art, does stop at the trial balance, because when we get beyond that point we are analyzing and interpreting the recorded business evidence; we are making deductions on a scientific basis.

As the practicing accountant is expected to do more than accounting, so the bookkeeper should be able to do more than just keep books; but that does not affect the scope of the art of bookkeeping nor that of the science of accounting.

George Lisle in his work defines accounting as "The science which treats of the methods of recording transactions entered into in connection with the production and exchange of wealth, and which shows their effect on its production, distribution, and exchange." A little farther on he makes the statement, "Accounting is a branch of mathematics." This attitude on the subject of accounting is open to two objections:

1. Accounting is not a branch of mathematics although we use mathematics to assist us in solving accounting problems. Physics and chemistry use mathematics to assist in establishing their conclusions to an even greater degree than does accounting, yet we should never consider them branches of the science of mathematics. One of the great things which accountants emphasize in good accounting is the complete equation of records. To the speaker's mind the equality should be completed not because it indicates that the accounting is correct from a mathematical point of view, but because it shows both the origin of each transaction and how it has influenced the affairs of the concern, thus giving material for correct analysis by giving us a means of tracing out flaws in entries. One may have very bad, misleading accounting with a balanced set of books, and it would be a poor specimen of an accountant who would accept correct mathematics as a proof of correct accounting. The two following trial balances will illustrate the point that accounting as a science is not a branch of mathematics.

TRIAL BALANCES.

J. Jones		36,000	3,000	36,000
C. Smith		24,000	2,000	24,000
Cash	3,000		3,000	
Real Estate	20,000		20,000	
Machinery	15,000		15,000	
Merchandise	85,000	54,000	85,000	54,000
Furniture & Fixtures	3,000		3,000	
Expense	2,000		2,000	
Salaries	5,000			
Wages	5,000		5,000	
Bills Receivable	4,000		4,000	
Accts Rec.	30,000		30,000	
Bills Payable		3,000		3,000
Accts Payable		55,000		55,000
Total	172,000	172,000	172,000	172,000

Merchandise Inventory \$48,000.

Depreciation—Real Estate \$1,000, Machinery \$1,500, Furniture and Fixtures \$200.

Interest on capital invested and withdrawn 6%.

We take as an illustration a hypothetical case where two men, Jones and Smith, are partners doing a certain business, and another man, Brown, offers to buy one-half interest in the firm on the following terms:

(1) He will invest as much capital as the combined net worth of Jones and Smith in the business at the end of the year.

(2) He will give in addition, for good will, to Jones and Smith twice the profits of the past year.

(3) In determining loss and gain the following depreciation charges shall be made,—Real Estate \$1000, Machinery \$1500, Furniture and Fixtures \$200.

(4) In determining loss and gain the business must pay six per cent interest on all capital invested and the partners must pay to the business six per cent interest on all capital withdrawn.

If the partners, Jones and Smith, know of Brown's intentions at the beginning of the year, several methods might be used in keeping the books, two of which are

tested by the trial balances above and are found to be mathematically correct. In the first case Jones and Smith have paid themselves \$3000 and \$2000 salaries respectively for running the affairs of the concern, and have counted those salaries as part of the cost of production. Under the circumstances the loss and gain account shows that the business has lost money.

No. 1

LOSS AND GAIN.

Cost of Goods	85,000	Sales	54,000
Salaries	5,000	Inventory	48,000
Wages	5,000	Loss	1,300
Expense	2,000		
Depreciation			
Real Estate	1,000		
Mach.	1,500		
Fur. & Fix.	200		
Interest			
Jones' Cap.	2,160		
Smith's Cap.	1,440		
	<u>3,600</u>		
	103,300		<u>103,300</u>

BALANCE SHEET.

Assets		Liabilities	
Cash	3,000	Bills Payable	3,000
Bills Receivable	4,000	Accts Payable	55,000
Accts. Receivable	30,000	Interest	3,600
Merchandise	48,000	Capital	
Real Estate	19,000	Jones	36,000
Machinery	13,500	Smith	24,000
Furniture & Fixtures	2,800		60,000
Loss	1,300		
	<u>121,600</u>		<u>121,600</u>

In the second case each partner adopted the fiction that he gave his services to the concern and withdrew from his capital \$3000 and \$2000 respectively, thus diminishing his capital by the amount withdrawn but in no way affecting the loss and gain account, save to add interest to the extent of \$300 to the gain side. The records show, however, a considerable profit.

No. 2

LOSS AND GAIN

Cost of Goods	85,000	Sales	54,000
Wages	5,000	Inventory	48,000
Expense	2,000	Interest	
Depreciation		Jones Withd.	180
Real Estate	1,000	Smith's Withd.	120
Mach.	1,500		300
Fur. & Fix.	200		
Interest			
Jones' Cap.	2,160		
Smith's Cap.	1,440		
Gain			
	4,000		
	<u>102,300</u>		<u>102,300</u>

BALANCE SHEET

Assets		Liabilities	
Cash	3,000	Bills Payable	3,000
Bills Receivable	4,000	Accts. Payable	55,000
Accts. Receivable	30,000	Interest	3,600
Merchandise	48,000	Capital	
Real Estate	19,000	Jones	33,000
Machinery	13,500	Smith	22,000
Furniture & Fixtures	2,800	Gain	4,000
Interest	300		
	<u>120,600</u>		<u>120,600</u>

If Brown accepted the equation of the accounts in the second case and the conclusions reached from them by the correct mathematics, he would be paying a steep price for his own ignorance and the other men's rascality.

2. The other objection to Lisle's definition that may be pointed out is that while it states in a general way what accounting should include, it is open to the defect of a narrow interpretation in that it regards accounting as a species of advanced bookkeeping. For quite a while the writers on accounting have taken the narrow interpretation and have regarded accounting as the science which relates to the proper classification of the receipts and expenditures of a business in such a way that the owners may determine the losses and gains and assets and liabilities of the enterprises under consideration. The works

of Lisle, Dicksee, and almost every other writer on the subject have confined themselves more than they should to this restricted phase of the question, and, as a result, we find that there is a tendency on the part of most people to regard accounting in a more narrow light than it should be regarded.

Professor Cole in his recent contribution calls attention to a phase of accounting which, it seems to the speaker, should be emphasized very much more strongly than it has been in the past. A chapter is devoted to the subject entitled "The Place of Statistics in Accounting." In the chapter he points out the value to the manufacturer of gathering and arranging information which does not show directly in the loss and gain account and balance sheet, but which at the same time is exceedingly valuable to the management of the concern in revealing the efficient and non-efficient parts of its organization.

If we consult authorities on statistics, we find that statistics is defined as the science of counting. It is the science which deals with the collection and interpretation of numerical evidence in order to arrive at definite conclusions concerning economic and social phenomena. Murray in his great dictionary defines accounting as "The action or process of reckoning." It is derived from a French word which has in turn been derived from a Latin root, *comput*, meaning a reckoning or counting. From the bare definitions note the similarity of the subject matter of the two sciences, statistics and accounting. Both are sciences of reckoning.

It may seem a little startling to call accounting a statistical science, but as a matter of fact, do we not, either consciously or unconsciously, apply statistical methods in pursuing accounting work? A loss and gain account and a balance sheet are really tables in which are classified

financial data of an enterprise for the purpose of determining certain conclusions about the business. We call the gathering of cost data and other information relating to the efficiency of the plant the collecting of plant statistics. If that is gathering and keeping plant statistics, is not every entry on the other books, whether a purchase or a sale, bills payable or cash payment, or whatever it may be, the keeping of financial or commercial statistics of the business?

Every business has two sides which may be considered the financial and managerial sides respectively. The financial side of a business includes all the transactions which arise between:

1. The firm and stockholders, or between partners;
2. The firm and debtors;
3. The firm and creditors;
4. The income and expenditures of the firm;
5. Its losses and gains;
6. Its assets and liabilities.

The managerial side of the business includes all transactions which arise between:

1. The various departments which produce or sell goods, including the cost of goods both as a whole and by departments.
2. The firm and its employees.

On the financial side the owners of the concern are interested in the sums of money the enterprise is making or losing. On the managerial side they are interested in how it is being made or lost, what is the efficiency of the concern, and how they can further economy in production.

Accounting is the science which shows how to make the records which will tell the financial status of the business, and which shows also the efficiency of departments.

and of its employees. It is the science which enables you to determine how losses like depreciation and other things should be distributed. It is the science which enables you to determine the costs of manufacturing goods both as a whole and in each step in the process. It is the science which enables you to compare different methods in carrying on the business so that the officials can determine their policy in management. It does not, however, consider the problems of industrial management and organization. It shows quickly and accurately how different policies in organization and management affect the earning power and productive capacity of the enterprise. In its broad aspect it is a statistical science which tells how to make records and which gets into and shows up the workings of all parts of the concern both financial and managerial. It is the barometer of the business.

A definition which would include all these points and at the same time prescribe its limitations might be expressed as follows: Accounting is that science which treats of the methods of recording transactions in business, and interprets the statements recorded in books and documents so that the layman may have a clear conception of the exact financial and managerial standing of the firm or enterprise both in parts and as a whole.

THE PRESENT POSITION AND PROBABLE DEVELOPMENT OF ACCOUNTANCY AS A PROFESSION.

J. E. STERRETT.

Every important interest or movement presents itself to the serious thinker in the twofold aspect of past and future—history and prophecy. Only through a knowledge of the first is the second possible; only through an interest in the second does the first assume its rightful importance.

I propose to direct your attention briefly to the subject of accountancy in the light of these two aspects, that we may find what it now stands for and also, if possible, gain an insight into what it may become if proper efforts are directed toward the evolution of higher professional ideals.

In the first or historical aspect, it may be said that while accountancy as a distinct profession in the United States is of so recent a development that it may be said to have scarcely any history, yet on the other side of the Atlantic, particularly in Scotland, it has been recognized for more than a century as a distinct and honorable calling; and for over half of that time Scottish societies have demanded a training upon the part of candidates for admission equal to the education required in law and in medicine.

In England, while of a somewhat later growth, accountancy has made rapid strides. In the two great societies now existing there are at least five thousand accountants

who may be said to be in active practice. In addition to this many have gone out to the British colonies, while still others, trained in England or Scotland, have come to our shores and, in not a few cases, have become leaders in the profession in the United States.

Prior to twenty years ago the public accountant was in no true sense a factor in American business life. Indeed, it would not be far wide of the mark to apply this statement to a period within ten years, during which the work of public accountants has at least quadrupled, if indeed it has not increased ten-fold. Without boasting, this fact must be recognized in considering present conditions, for obviously the pressure that has been put upon individual accountants during these recent years has not favored the development of a high type of professional life. While this acknowledgment does not justify certain present conditions, it does at least explain why they exist, if it does not to some extent excuse them.

In its legislative development accountancy has followed the general trend of that of the medical profession some years ago. Thus far, the legislation that has been effected merely provides for recognition and also sets up prescribed standards, which, when attained by the applicant, permit his using the title of Certified Public Accountant, or its distinctive initials, C. P. A. This usage guarantees to the public that certain requirements have been complied with. Earnest efforts are being made to raise these standards to a higher level with an approximate uniformity among the states. Anyone who so desires and who can find clients to patronize him is at liberty to practice as a public accountant anywhere in the United States. It is, however, altogether probable that within a short time restrictive legislation will be secured under which it will be necessary for all those who wish to prac-

tice to conform to reasonable standards of education and training.

In Great Britain, because of the standing of accountancy as a profession, young men of good family and with a college or university education are attracted to it in large numbers. Before being permitted to practice as a chartered accountant, however, these men must pass through an articulated clerkship of from three to five years, during which time they draw no salary. Moreover, they usually pay a premium of from a thousand to twenty-five hundred dollars before being articulated. After passing their preliminary examinations they must succeed in an intermediate and in a final examination. These tests cover not only accounting in the ordinary sense of the term, but also require a good knowledge of mathematics, economics, and at least one modern language.

In America the articulated clerk system does not exist. A young man coming into the profession here can either enter the office of an accountant as a clerk on a salary, or he can secure part at least of his theoretical training in one of the university schools. These schools are of such recent origin that it is yet too early to determine just how useful a purpose they are going to serve in the development of accountancy, but the attitude of accountants generally toward them is that of hopeful anticipation. That they have not yet provided a form of training that has been wholly satisfactory to accountants is doubtless due at least in part to the difficulty of securing instructors who understand something more than the most elementary features of accountancy. It would hardly be expected that a medical school could attain high reputation with a faculty composed of men who, however great their knowledge in allied fields, were possessed of no hard earned experience in the diagnosis and treatment of dis-

ease. It is to be hoped, therefore, that the university schools may not be manned entirely by instructors who have only a theoretical knowledge of accounting practice. This point is vital, and any school failing in it is likely to prove disappointing to the institution with which it is connected and to the profession which it aims to serve.

In spite of the lack of orderly means of training, the public accountant has attained in this country a position of considerable importance. The intelligent business man of today knows what a public accountant is, and has a fairly clear notion of what he does.

Corporations of the better class here are of their own volition rapidly adopting a practice long established in England (which has become obligatory under the Companies act of 1900), and are retaining public accountants to make periodical audits. Such corporations usually publish a certificate signed by these auditors, testifying to the integrity of the accounts issued to the investing public. Within very recent years this practice has made such headway that the present rate of increase will shortly place in an apologetic position those corporations that do not adopt the practice.

Thus, in the audit of accounts of corporations and others, in the investigation of properties for prospective purchasers, in the organization and installation of accounting systems and in the revision of business methods, the accountant of today finds himself in a position where he not only has the favorable opinion of the business community, but finds in his work a constantly enlarging sphere of usefulness.

Turning next to the more speculative, and perhaps more interesting, division of my subject—the prophetic aspect—let us attempt to investigate the probable development of this youngster that has landed in a somewhat

rough-and-tumble fashion in our midst. It would seem as though three courses are open, along any one of which it might be possible for accountancy to develop.

First, after the manner of the age, it might merge with other existing professions, or with parts thereof, to form a composite profession including, perhaps, certain classes of work now conducted by engineers, and possibly also absorbing certain kinds of work now carried on by the legal profession, and also taking up the burden of that somewhat shadowy individual, the business adviser.

It is reasonable to presume that the successful engineer of the future will have a more comprehensive knowledge of accounts and accounting practice than had his brother of the past; and the lawyer, too, is finding that his practice often takes him into the field of accounts, of which he can no longer afford to be ignorant. It is hardly likely, however, that either of these professions will seriously attempt the difficult task of riding two horses at once. It is much more likely that both will assume toward accountancy the attitude now adopted by the best accountants toward engineering, and particularly toward the law. An accountant in active practice needs to have a fairly comprehensive knowledge of those branches of legal knowledge commonly known as commercial law. This knowledge, however, does not in any way interfere with his relations with the legal profession, and his knowledge of the law only enables him to coöperate more fully with his legal brother in a common effort to attain the ends of equity and justice. Friendly coöperation rather than combination would seem to be the logical development of engineering, law, and accountancy. Each of these professions has within it ample ground that is individual and distinctive, although in company with all other classifications of human knowledge and activity

there are of necessity certain points of contact where one merges in the other.

The so-called business adviser, as a distinct entity, is scarcely yet a concrete proposition, and it is hardly conceivable that he will attract much serious attention in the near future. Advice will be sought by the business man according to his needs from all the professions, and with the present development the ground seems to be so covered that there is little room for another specific profession unless it is to supplant some one of those already in action. Neither the need nor the probability for this exists today, and discussion of it is little worth while.

Granting, then, that accountancy is to retain an independent existence, some would urge that its largest usefulness will be attained by specialization. That is to say, certain members of the profession will devote all their attention, for instance, to banking, and will thus become deeply versed in not only the accounts of banking institutions but also familiar with all the mysteries of fiscal operations. Others, again, will find their field in the foundry or in the machine shop, where they will familiarize themselves with industrial processes and the means of creating and maintaining the most effective forms of organization, as well as the most simple and yet most comprehensive methods of accounting for these classes of business activity.

Still others may specialize in the organization, administration, and accounting of our great department stores. So on through the list some would have us see the accountant of the future turning away from general practice to the less extensive but more intensive work of the specialist. In some ways this is an attractive vision. The human mind does reverence to the man who has chosen to limit the breadth of his field to pursue it to unlimited

heights and depths,—whatever that study happens to be.

These forms of specialization, however, exact their own penalty. It is the rare man indeed who can at once maintain intensity and breadth of vision, and it is at least an open question whether professions in which specialization has been carried farthest, as in medicine, have found it an unmixed blessing. Is it not a matter of common knowledge that the health, even the life, of many a patient has been imperilled by the severe specialist who, enamoured with his own little branch of medical science, has failed of that larger vision that would have detected contributing causes of first importance?

Two factors seem to militate against a high degree of specialization in accountancy. One is the fact that "business" is a large and complicated concept, and, although at first blush it would seem as though this were an argument in favor of specialization, it is nevertheless true that the business man has to entertain this concept, and anyone who is to be of any but minor assistance to him must be able to approach a problem with a more comprehensive knowledge than a specialist can hope to bring to bear upon it. Much of the work that has occasionally brought discredit upon accountancy in the past has been the result of a lack of intelligent appreciation of the larger underlying principles involved. It is a relatively easy thing to devise ways and means of dealing with small sections of a problem, but, unless these be coördinated with other sections to which they bear a more or less intimate relation, the practical operation of the whole will be retarded rather than forwarded. Knowledge gained through an audit is frequently of the highest value to the accountant in devising a system of accounts or records; and experience in one branch of business is often extremely useful if not absolutely necessary for an accountant to

deal satisfactorily with the affairs of other types of business.

Another important factor working against a highly developed type of specialization is the extensive organization required in an accountant's office. There are, of course, many men who are practicing alone, but even these, if their practice is of any moment, find it necessary to maintain staff organizations that are out of proportion to those required in most, if not all, other professions. The tendency of the times is, moreover, strongly towards the larger organizations found in firms made up of a number of partners and carrying large permanent staffs of trained assistants. Further than this such firms find it necessary to maintain offices in perhaps a number of different cities. All this makes specializing difficult even though such specialization were considered desirable.

If, then, accountancy is not to lose its existence, and is not to split up into a number of camps, what, it may be asked, has the future in store? In answer to this, and while denying most positively that the accountant is to become a narrow specialist, it may be frankly conceded that there are two phases of accounting work, each presenting some distinctive features. One is analytic as typified by the audit and the examination; the other is synthetic or constructive, instances of which are found in the construction and installation of cost and other systems of accounts.

It is quite probable that some division along this broad line will take place. Some accountants, or accounting firms, will find their largest field of usefulness in constructive work, while others will build their reputation mainly upon audits and investigations. Many others, however, will undoubtedly combine these functions and will continue a general practice even though a certain

amount of specialization may be maintained in the firm or in the staff. The standardization of accounting classifications and methods will have a tendency to reduce the volume of constructive work, although it is probable that the growth in business and the generation of new ideas will more than counterbalance this contraction. So it is likely that for many years to come there will be a profitable, although ever difficult and vexatious, field for the accountant in devising and installing accounting systems and reorganizing business methods.

A very large development is almost certain to come in the near future in the matter of annual or at least of periodical audits of the accounts of corporations and others. It should be remarked in passing that the public generally in this country does not appreciate the real meaning of the term audit as used by accountants. The average man is likely to conceive of an audit as a checking over of vouchers and the comparison of entries in the books with various sorts of original data and in this manner ascertaining the mathematical accuracy of the records. It is true that this is one form of an audit and commonly known among accountants as a detailed cash audit. It has and will continue to have a certain degree of usefulness, and will be employed more or less extensively in dealing with the accounts of smaller business organizations. In auditing the accounts of a large industrial corporation or of a trunk line railway, it is obvious that this method of procedure would entail a volume of work that would be prohibitive and would produce results in inverse ratio to the time spent upon the work.

Time does not permit of an adequate discussion of the principles involved in the audit of the accounts of a large corporation, but, briefly speaking, attention must be directed mostly to the preparation of the balance sheet. If

from year to year the balance sheets presented by a corporation are correct, it follows as a matter of course that the true profit and loss for each period is revealed, so that therefore the whole case rests upon the integrity of the balance sheet. Have the assets been properly valued? Has sufficient allowance been made for maintenance and depreciation? and for possible losses through bad debts or otherwise? Are the current assets properly classified so that an intelligent opinion can be formed as to their probable realization? Are all of the liabilities included, or is there perhaps a large volume of liabilities of underlying companies that are not revealed upon the general balance sheet? These and many others are questions that present themselves, and are often of a most difficult and highly essential nature.

It must be borne in mind that a balance sheet of any large corporation is not a statement of facts that can be demonstrated with mathematical accuracy so much as it is an expression of an honest and intelligent opinion. In this expression of opinion the public accountant is now being recognized as an authority, and what is being widely done through the voluntary action of corporations that desire to deal fairly with their investors will doubtless become a legal requirement, and before many years the independent audit of all corporations offering their securities to the public will be firmly established.

With this, or possibly preceding it, will also come a civil liability on the part of the accountant for the faithful and diligent performance of his duties. As yet there are no decisions in this country upon the question of the liability of an auditor, but under the English law his liability, both civil and criminal, is pretty well established. A case in point was one in which two fairly prominent chartered accountants had been auditors of a

bank for a number of years, and had failed to disclose frauds that had been practiced by the officers of the institution; and upon the failure of the bank the auditors with the directors were, after trial, imprisoned at hard labor. In another leading case it is generally understood that a firm of accountants effected a settlement by paying £60,000 rather than take their chances with a jury. Civil liability on the part of the accountant is, I believe, certain to come in this country, and while each member of the profession may well pray that the offense shall not come by him, it is nevertheless true that the effect of a clearly defined civil liability will be salutary. It will give confidence to the business public in the accountant's certificate as nothing else will do, and while the best accountants today recognize their moral responsibility quite as much as it will ever be necessary for them to recognize any legal responsibility, the knowledge that a civil and possibly a criminal liability attaches to them will deter the careless or the indifferent.

Accountancy, then, is not to be a thing of shreds and patches, but will, if those in whose hands its fortunes are entrusted fulfill their part, expand along the lines upon which it is now operating, growing in dignity and power until it will stand shoulder to shoulder, in the estimation of the public, with those older professions whose courses have been a laborious evolution of years and centuries. Accountancy will offer within itself a field for the exercise of widely differing talents, and while the individual members will vary in their scope and methods of practice, they will still be in the true sense of the term and will ever take pride in being called accountants.

In an hour when complaints are heard on every side that the law is crowded, that the young man entering

that noble profession has years of labor and of waiting before he can hope to gain renown, and when the same cry goes up from other professions, may we not well suggest to the young man aspiring for professional honors that accountancy affords an adequate field for trained minds and willing hands, and offers inducements, financial and otherwise, that are largely in excess of those attainable in any but exceptional instances in the older professions?

ROUND TABLE ON ACCOUNTING—DISCUSSION.

B. M. RASTALL: I have been asked to remark upon the place for accounting in the university curriculum.

In considering the claims of a new subject it is always enlightening to consider it in relation to kindred fields and so by comparison to fix its place in the general field of study. Accounting is closely related to the mathematical sciences, resembling and paralleling in a great many ways the science of geometry. Like geometry it rests upon a few fundamental principles (axioms) from which the whole structure in all its ramifications is deduced by logical processes. It has the same type of close reasoning from cause to effect with the possibility of definite, logical result. It exceeds geometry in the extent to which the mastery of its processes and extensive practice in the application of its principles opens the way to new concrete developments, short cuts, and the general fitting of ends to means. Like geometry its methods and results are open to the widest criticism and will be given permanent form only at the end of long controversy.

I may say in brief that I have no sympathy with the opinion that accounting is a subject of doubtful university grade. It has the sound claim to a position in the field of science that we have just noted. To be sure elementary accounting can be compared disastrously with advanced mathematical courses or the higher courses in any other science. But if it be compared with beginning courses in language, or commercial geography, or elementary economics and history, as admitted to university

standing, it will not suffer thereby. And the problems involved in higher forms of expert accounting, such as those of the Interstate Commerce Commission reports, auditing and public accountancy, place the field upon a par with the most advanced courses of mathematics or other science.

The paper just read would indicate that the speaker considers statistics a part of accounting, and the two subjects are at least of very close association. The problems involved in statistical work are certainly not of a higher order; the work does not represent so broad or far-reaching a field; its personnel is not of a higher rank. Yet the study of statistics has occupied an undisputed place in the university curriculum for years. Why, then, the question of accountancy?

The importance of accounting in the economic field and to the world at large is becoming more clearly recognized every year. The university should not lose the opportunity to develop and broaden such a field into a complete science for human usefulness.

A. M. SAKOLSKI: In the matter of the relation between economics and accounting, may I not point out one illustration of the lack of harmony between the two sciences? It has long been a fixed principle of accounting, both in theory and practice, that no appreciation in the value of assets can be taken into account unless such appreciation is realized as the result of a transaction, whereas depreciation, especially in the valuation of floating assets, is held to be a definite loss and is a charge against the profit and loss of the business. Does not this principle whereby assets are valued "at cost or market value, whichever is the lowest", have its origin from the fact that accounting is not only a mathematical science,

but is also a practical science, and, unlike economics, must adjust itself to business practice? It records values in relation to individual concerns, and these records, to be valid, must show tangible results on the basis of which the proprietors or directors can take definite action, such as the payment of dividends, etc.

Economics, on the other hand, deals with values as "social phenomena", and to express such value in terms of actual money cost to individual concerns is almost meaningless. Moreover, the conception of profits as increments of value resulting from business transactions is also foreign to the teachings of economics, inasmuch as here value is "exchange value" and is the expression of an equation of sacrifice or of utilities.

It seems to me that an attempt to harmonize completely the principles of accounting and economics as now commonly taught must result in considerable change in the latter, since accounting, being the outgrowth of business demands and conforming strictly to modern business practice, cannot arbitrarily be made to undergo changes in methods and principles without seriously interfering with its usefulness. If, for example, you attempt to "write up" for appreciation in the same manner as depreciation is "written off", there is grave danger of confounding a surplus available for dividends with a fictitious surplus due merely to the revaluation of assets. The latter is nothing more than a "paper" profit determined by the judgment of proprietors, accountants, or some other persons, and is based upon circumstances extraneous to the business without in any way changing the identity, form, character, or efficiency of the assets. To counterbalance such profits by reserves serves no practical purpose from an accounting standpoint other than to mislead the investing public by an unduly large showing

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of total assets. The value represented by appreciation, however, from the standpoint of society, is of as much importance as any other form of wealth including intangible values, such as efficiency of organization, good will, etc.

LEON BRUMMER: It appears to me that the future development of the profession of accountancy is dependent upon the progress of accountancy education, accountancy legislation, and accountancy popularization, but principally upon the educational feature. That economic associations have recently given attention to the discussion of this subject, and that the universities are now earnestly considering same, means very much to the profession. It means that this profession will be carefully studied, and that all which is of real value will be unfolded. If the recent growth of accountancy has been due to the necessities of the business world, how much greater will be the growth if we call to the aid of this young profession the experience which has been acquired in the upbuilding of medicine, law, and other professions. The absence of a proper school of accountancy in this country has long been a great weakness; we have no acknowledged authorities on many points of principle and on many points of practice. Notwithstanding that even after the establishment of proper schools there will be differences of opinion in both principle and practice, these differences will then have more opportunity of being intelligently debated and adjusted. There can be no learned profession if there is no institute of learning; and if accountancy is worthy of being associated with the other professions, it must be developed along lines scientific as well as of every day use. I quite agree with Mr. Sterrett in his remarks relative to the necessity of

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securing instructors who are actually in practice, and am also of the opinion that without such instructors the schools will prove unsatisfactory; but it must be remembered that most of the men now in practice are not capable of developing the profession from the university standpoint, and in that regard I reiterate that it is most fortunate that the subject is being recognized by the universities and is having the benefit of their guidance.

Legislation is necessary for the advancement of the profession, only so that the community may be protected from the unskilled person posing as a professional accountant. It is fair to assume that such legislation will be forthcoming as soon as the professional accountant by reason of his education, training, and proved integrity, has demonstrated his superiority and his necessity. Thereafter, further laws will be enacted requiring his protecting skill and judgment in matters of public interest, such laws clearly defining the field which shall be exclusively his.

The popularization of accountancy is entirely in the hands of the accountant. If, as a class, he will raise his work to the very highest standing, and will actually demonstrate to the public his integrity and his fitness for the scientific work which he undertakes, popularity will soon follow; and with this popularity will come all needed legislation and an expansion of his field of usefulness. But his employment must be so conditioned that he may solve with untrammelled freedom the problems which are presented to him; nor should there be possibility of his opinion being made subservient to the views of an employer, by reason of a possible cessation of his retainer on account of justifiable adverse criticism.

We therefore require, first, a profession developed along educational lines; second, legislation encouraging

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students by reason of the usefulness to which the accountant may attain; and, finally, the accomplished results of the accountant which will convince the community that the professional accountant has a well defined sphere in the world of today.

O. M. W. SPRAGUE: I suggest that a distinction might perhaps be made between an advance in land values accompanied by a consequent increase in earnings; for example, a corporation constructing and owning buildings, and an advance in land values which might have no direct relation to earnings; for example, the land occupied by railway terminals.

SIMON LITMAN: The papers of my colleagues, Professors Robinson and Duncan, are full of valuable suggestions and of interesting information as to the relation between accounting and economics, the nature and functions of accounting, and the place accounting occupies amongst other sciences. I should concur with all that they have said, were it not for certain statements which disagree with my conception of the science of statistics.

Professor Duncan states definitely that accounting is a statistical science. I admit that accounting deals with intricate numerical problems and that it approaches these problems with the modern spirit of scientific inquiry; I admit also that accounting is based upon the knowledge of the methods of classification, and that one of the main characteristics of both the statistician and the accountant is a power to analyze data and to present the results clearly.

Both statistics and accounting deal with figures; nevertheless, accounting is not a statistical science, because it does not study group and mass phenomena and does not

attempt to detect and to state tendencies and regularities in our social life. This study of group and mass phenomena is the object of statistics. Professor Duncan defines accounting as "a science which treats of the methods of recording transactions in business and which interprets the statements recorded in books and documents so that the layman may have a clear conception of the exact financial and managerial standing of the firm . . . "; in this definition he defeats his own contention that accounting is a statistical science. When we cease dealing with a single enterprise, be it a small store, a large corporation, or a municipality, and when we begin to group similar business undertakings in order to study the relations between capitalists, landowners, entrepreneurs, and laborers, we are doing statistical and not accounting work. The statistician of today may find for many of the problems confronting him help and inspiration in the labors of the accountant, just as the accountant may be guided in many of his pursuits by the work of the statistician; but there is, to my mind, a definite demarcation line between the two sciences.

I agree with Professor Duncan that accounting is not a mathematical science, but, it seems to me, he has not made his contention sufficiently clear. He leaves the listener under an impression that an answer numerically correct necessarily implies correct mathematics, which is wrong. In mathematics, just as in accounting, we may arrive at a correct numerical result by incorrect methods. The reason why accounting is not a mathematical science is the following: in the problems investigated by the accountant we may reach a correct result by a number of mathematically correct methods, which, however, from the point of view of a business proposition would be dubious or fraudulent. The criterion of accounting is

not mathematics, but a combination of correct mathematics, business ethics, and other factors.

Professor Rastall in the course of his remarks on accounting made a statement which, I think, should not go on record unchallenged. He says that we ought not to combat the introduction of elementary accounting into our colleges and universities, because we have on our programs a number of subjects in no way superior to elementary accounting; to illustrate his views, he cites elementary French or elementary German.

Without entering into the discussion of the desirability or non-desirability of introducing elementary accounting, I most seriously object to its introduction on the ground that we have other elementary courses. Let us ask ourselves the question whether an increase in the number of such courses is wise or not. The fact that we are teaching our students that the German for *table* is *Tisch*, or that the French for *chair* is *chaise*, is not a valid justification for burdening the curricula of our institutions of advanced learning with similar elementary studies. I think that, so far as is practical, we should strive in our universities rather towards the elimination of elementary courses than towards their further increase.

SOME FUNDAMENTAL DISTINCTIONS IN LABOR LEGISLATION.

H. W. FARNAM.

In the scholarly presidential address, which he delivered a year ago at the first annual meeting of this association, Professor Ely dealt with the relations of labor legislation to economic theory. He showed that most of the early economists were on principle opposed to legislation which seemed to them to be a futile interference with economic laws, but that their successors gradually changed their views, until at the present day there are very few who would condemn labor legislation as such. If, however, we no longer hold that all labor legislation is unscientific and futile, neither do we believe that all that goes under that title is scientific and effective. Still less do we believe that everything that is demanded in the name of labor is going to accomplish what is expected of it, even when we approve of its general aim. And while the doctrine of *laissez faire* no longer ranks as an infallible principle of state-craft, it may still serve the useful purpose of the slave who stood behind the triumphant Roman general to remind him that he was still a man. We, too, need occasionally to be reminded that, though legislation has accomplished much, it has also frequently failed; that it is very apt, even when successful, to produce unexpected results; and that we cannot be too careful to study with all of the statistical and administrative material at our disposal the complex operation of past laws before advocating new ones. We prefer to let evils work their own

cure, if they can, and we must always balance the "ills we have" against those "we know not of." We have thus reached the point at which the emphasis should be laid, not on negation, nor on agitation, but rather on discrimination.

The general term labor legislation embraces at the present day a heterogeneous mass of enactments which impinge upon the individual in very different ways, and which really fall into three quite distinct classes, if we group them with reference to their immediate bearing on economic processes.

In the first class, which is also the oldest, we have what is commonly termed labor protective legislation. Familiar types are laws limiting the age of employment of children, limiting the hours of employment, prohibiting certain kinds of employment to women or children, requiring the use of safety appliances in connection with machinery, limiting migration, etc. They determine the conditions under which labor must be performed, but do not directly affect the terms of exchange. They operate like dykes, which confine a river to a certain bed but do not change the flow or general course of the water.

In the second class we have legislation which aims not so much at excluding certain unfavorable conditions of labor as at the direct bestowal of pecuniary benefits. This legislation may not inappropriately be called distributive or positive legislation. Compulsory insurance laws which require the employer or the state to contribute a part of the funds would come under this head, as well as employers' liability laws, old age pension laws, laws providing for the fixing of wages by wage boards or compulsory arbitration, etc. These laws require certain positive contributions on the part of the public, the employer, or the wage receiver, or of several of them combined. They

directly affect the terms of exchange by supplementing or modifying the wage contract.

In the third class we have legislation which is designed to encourage or promote certain institutions, but which neither contains a prohibition nor an injunction, and may therefore be called permissive. Most of these laws in their application to labor involve the use of certain forms of self help. In this group we should include, therefore, laws permitting and regulating labor organizations, benefit societies, coöperative associations, voluntary arbitration boards, joint boards for collective bargaining, etc.

The attitude of the law-giver towards the citizen in these three classes may be tersely expressed as follows: laws of the first class are mainly prohibitive and say "thou shalt not;" laws of the second class are mainly mandatory and say "thou shalt;" laws of the third class are mainly permissive and say "thou mayest."

It would carry us too far to attempt any statistical study of the way in which the laws of these three classes have operated in practice, but their influence upon economic forces may be explained by an analogy drawn from another and less debatable department of economics. While on many topics economists are still at variance, the experience of the world in dealing with money has been so long, and it has been the subject of such careful study, that, in spite of differences of opinion regarding certain points of monetary policy, there is a pretty general agreement regarding the laws of monetary circulation. One of the most important aims of all monetary legislation is to establish a definite standard of value. For centuries the world's standards were steadily deteriorating. For many years after Sir Thomas Gresham had formulated his famous law, according to which bad money drives out good money, no means had been discovered of coun-

teracting what seemed to be an inevitable law of monetary degeneracy. Just as soon as one metal depreciated in value, just as soon as the government issued coins of light weight, or dishonest people sweated or clipped the coins, the inferior coins tended to remain in circulation, while the better ones were melted down or hoarded. The competition of those who had money to sell,—that is, who wished to buy goods,—took the form of offering the poorest money that the other party to the bargain could be induced to accept. Gresham's law was, however, not an inevitable law of nature. Like all economic laws it expressed a tendency; therefore, it expressed what will happen under conditions favorable to that tendency. It did not say that the tendency could not be neutralized by changing the conditions. And as soon as the government decreed that coins below a certain weight and fineness should not be received as legal tender, and provided for the retirement of light coins, the profit on using cheap money disappeared. The question was no longer, how bad a coin can be palmed off for a certain kind of merchandise, but how much merchandise shall be given for a standard coin.

Now there is a close analogy between the condition of things in the world of money down to the end of the eighteenth century, and in the world of labor during a good part of the nineteenth. In the wholesale and impersonal demand for labor which grew up with the factory system there was a natural tendency to employ those who would work for the longest hours and at the lowest wages. The result of employing this cheap labor was in the end to also make labor less efficient, and therefore worth less to the employer. It was practically impossible for the individual to fight against this tendency. An employer who deliberately paid higher wages in the

expectation of getting more efficient labor was in the position of a person who should endeavor to raise the standard of the coinage by always paying out the best instead of the poorest coins that passed through his hands. He would have his trouble for his pains, and others would reap the benefit of his liberality. When the laws were passed against child labor, limiting the hours of employment, limiting the age of employment, etc., and enforcing them by inspection, a new standard was created. The buying and selling of labor did not cease. The demand and supply acted as before. But the conditions under which they acted were changed. A child of ten years was no longer legal tender in the labor market. A day of thirteen hours was no longer a legal standard of time wages. The government did for labor what it had done for money, by providing that certain kinds of service should be as illegal as certain kinds of money were. The intervention of the state established a standard, changed the conditions of competition, and made it impossible for the employer to employ labor below a certain grade.

Labor laws of the second class, which I have designated as "distributive", also have their analogy in monetary legislation. Just as the monetary standard has sometimes been changed in order to benefit a certain class, especially to bring about a redistribution of wealth between debtor and creditor, so most of these laws endeavor to bring about a redistribution of wealth either between employer and employed, or between present and future income. If the government, for instance, issues paper money which is worth only ninety per cent of its face value, the debtor gains a hundred dollars on every transaction of a thousand dollars. Just so a law providing for compulsory insurance at the expense of the employer vir-

tually says: whenever you owe \$1 in wages you are obliged to pay not merely the \$1 stipulated, but \$1 plus a certain percentage needed to pay for the cost of insurance. Now while changes in the value of money which are brought about by unforeseen variations in the value of the metal may produce beneficial effects, history has taught us the danger of changes which are made deliberately with the intention of helping one class at the expense of another, and the history of labor legislation likewise shows that such a danger is inherent in all legislation of this kind. The danger is not great enough in all cases to condemn it. But there is always a risk of demoralizing the class supposed to be benefited in any law which produces a gratuitous distribution of property, unless carefully guarded against abuse. This danger is seen in the inheritance of millions by an irresponsible heir, in the marrying of millions by a conscienceless fortune hunter, in the subsidizing of industry by a protective tariff, no less than in lavish poor relief and in the transfer of wealth by law to the working middle class. All such laws are exposed to a danger not found in laws of the first class, which involve primarily a restriction rather than a privilege.

Labor laws of the third class also find their analogy in monetary legislation. Laws providing for the chartering of banks are here the counterpart of laws providing for the organization of trade unions, coöperative societies, and voluntary arbitration boards. A national banking law does not necessarily create national banks. National banks exist only if there are enterprising capitalists who desire to organize themselves under the law. For the same reason a law permitting the existence of trade unions does not necessarily lead to their formation. No unions will be formed, unless there are people who can command

the intelligent leadership and interest needed to organize them. The form, too, which they take will depend upon the national character, the economic and social habits, the prejudices, and even theories of those concerned. Hence we see that labor unions have taken one form in England, but quite different forms in Germany, and still different forms in France.

In distinguishing these three types I do not mean to assert that they are always kept perfectly distinct in practice. Labor legislation sometimes progresses in the accomplishment of a certain end from one type to the other. The small success of voluntary schemes for workingmen's insurance led the German government to introduce compulsory insurance, thus passing from laws of the third type to those of the second. As regards savings, this matter is still regulated by laws of the third type in general, but some economists are now advocating compulsory saving as a kind of insurance against unemployment. Likewise the limited success of voluntary arbitration boards has led in Australasia to compulsory arbitration. In still other cases two methods may be combined in a single law. Thus in the Ghent system of insurance against unemployment, there is a coercive or distributive feature in that the town pays out of the proceeds of taxation a certain sum towards the allowance of those who are out of work, but it pays this in most cases as a bonus added to the allowance made by labor organizations. It thus makes use of the methods of the second class to encourage institutions of the third.

The classification of labor laws just made is not only vital when we are considering the practicability of proposed measures; it also has an important bearing upon the work of this Association. The French and German names of the International Association indicate that it

was formed to deal only with such legislation as was placed by me in the first class, and the terms *Arbeiterschutzesetzgebung* and *La Protection Légale des Travailleurs* are synonymous. The adjective "protective", perhaps for the sake of euphony, perhaps for the sake of brevity, has been left out of the title as translated into English. But the limitation of scope still applies to the International Association, and the reason for it is simple. There already exists an international association for workingmen's insurance, which is the principal aim of legislation of the second class. There is likewise a coöperative congress which deals with what is probably the most wide-spread form of self-help among the laboring class, while the trade unions are many of them on an international basis and provide for an interchange of views in matters relating to their interests. The International Association, therefore, would be entering upon fields which are already preëmpted, if it were to deal with these other subjects. This does not necessarily limit the scope of the American Association, which can take up any subjects that it desires. But it does indicate its primary purpose.

We have thus far distinguished between different types of legislation with reference to the way in which it operates upon the economic processes. If we now look at the general purpose and trend of such legislation, we shall see that there are two main purposes which are not necessarily antagonistic, but which are yet distinct. The first purpose, which applies to all of the so-called labor protective laws and many of those which fall in the other two classes, is the preservation of the race and the maintenance of its quality. The principal argument for protecting children and women against excessive or unhealthy work is that the next generation is threatened.

The first child labor laws of Prussia were inspired by General von Horn, who, in 1828, called the king's attention to the difficulty of getting able-bodied recruits from the Rhine province. This same purpose applies to many other types of legislation. One of the strongest arguments for workmen's insurance is that the burden which falls upon women and children in the case of industrial accidents or disease is lightened, and that thus the succeeding generation is brought up under more wholesome conditions. Quite a different purpose appears when legislation aims to influence the distribution of wealth between different classes, when it consciously tries to raise the level of the wage-receiving class at the expense of the employers or of the community at large. These two tendencies, which are really quite distinct, are often confused. Many people, especially those of the individualistic school, are apt to group all labor legislation together as socialistic; and in many cases the very epithet, in the mind of those who use it, is enough to condemn the movement. This, however, is a superficial view. Socialism is not the only antithesis to individualism. If the extreme individualist is one who believes in the greatest liberty of the individual, he may be restrained either in the interest of his contemporaries or in the interest of his successors. The motto of the individualist who disregards the interests of his contemporaries is: "The public be damned"; the motto of the individualist who disregards the interests of his successors is: "After us the deluge." Thus there are two policies opposed to individualism, one of which takes into account contemporary relations, the other of which considers the element of time. Our social world, like our physical, is a world of three dimensions, not of two. From one point of view individualism is justly contrasted with collectivism or socialism.

From the other it is contrasted with a movement which is in reality not new, but which is as yet so little conscious of itself that nobody has apparently thought of giving it a name. If we may be permitted to borrow a word which was, I believe, first coined by Mr. Louis R. Ehrich, we may call it "posteritism." This movement is so important for the welfare and the permanent strength of any society, and it is capable of so many applications, that it almost implies a revolution in our social ideals. The general care for the life, intelligence, and morals of the next generation, as shown in labor laws, in the steps taken for the preservation of the national health, in the fight against tuberculosis, and in the creation of playgrounds for children, is but part of a greater movement which also includes measures for preserving our forests and our mineral resources, for draining our swamps and for irrigating our deserts. Still another phase of it is seen in the study of eugenics by our sociologists. It is not difficult to interest people in the preservation of our natural resources, but those who are far-seeing recognize that the people who inhabit a country are as much an asset as is its material wealth. Indeed, one without the other would be of little use. The labor legislation for which this association primarily stands forms, therefore, a part, but a very important part, of the general movement for posteritism.

Much that we advocate is not new. England, the states of continental Europe, and many of our own states furnish us with an abundant experience on which to base future action. And yet the matter is attended, in the United States, with peculiar difficulties which are partly legal and institutional, partly economic.

The legal difficulties arise from the very framework of our government. We have within the limits of the

United States, excluding Alaska and our distant dependencies, no less than fifty-one different legislative bodies which have the power to pass laws for a larger or smaller territory. Our country presents a more complex legislative problem than all the states of Europe taken together. There is, it is true, no lack of labor legislation in the United States. During the year 1907 alone no less than 405 measures regarding labor were passed, and all of the legislatures were not working that year.¹ But though many of our states are far advanced and stand on a par with the best states of Europe with regard to certain matters, we find that even adequate laws for the protection of the labor of children are still lacking in many of the states, laws for the protection of the labor of women are often subject to attack and nullification on constitutional grounds. When we look at the administration of these laws, we are obliged to confess that in many cases they are not executed by experts, but that the poison of the spoils system still neutralizes in most of our states the good that laws might otherwise accomplish.

While in the world at large labor legislation has already passed beyond the national stage and has now become the subject of international treaties, we are still struggling with a lack of uniformity both in lawgiving and in law-enforcing within the limits of a single country. We are not even able to command satisfactory information with regard to industrial accidents or industrial diseases in order to guide future legislation. So simple a matter as the registration of vital statistics is still in such a state of chaos that Congress has been obliged to request the states to introduce registers and has ordered a model law drawn up for their guidance. If we look at the matter in all frankness we must acknowledge that, while our indus-

¹ Mass. Labor Bull., March-April, 1908, p. 69.

tries are noted throughout the world for the inventiveness, the mechanical skill, the business talent which they command, and while we have every reason to be proud of our educational system and of our standing in international relations, we have apparently overlooked the art of legislation. The great mass of our state legislators have had no previous training in the study of lawmaking and law-enforcing. We prevent them from becoming skilled and responsible lawmakers by rotation in office, by infrequent sessions, and by constitutional limitations. The instruction which they receive from the lobby is often effective, but one-sided, since it is more apt to show them what is for their individual interest than what is for the interest of the public, present and future. There are fortunately signs of improvement. Expert commissions are being used more and more. The development of such an institution as the Legislative Reference Library in Wisconsin is doing much to educate our lawgivers. But the fact still remains that of all the industries of the United States lawmaking is perhaps the most backward.

There are also economic conditions which have made it peculiarly difficult to secure intelligent action on this subject in our country. The exhibit of the Pittsburgh Survey, which other speakers are to describe in detail at some of the other sessions of this gathering, may serve as an instructive object lesson. A visitor to that exhibit sees, as he enters the staircase hall of the Carnegie Institute, some beautiful frescoes representing the industries of Pittsburgh in their power and energy. As he ascends he sees another series of frescoes representing the "ceaseless movement of the people", men, women, and children passing on to work or play. It is true, as we are informed, that these figures are not idealized, but it is also true that the artist has shown but one side of the medal.

The assets are there, but where are the liabilities? Where is the depreciation account? If we pass into the room occupied by the Pittsburgh Survey, we see another frieze made up of small black figures, also passing in an endless procession around the room. Each one of these figures stands for one of the 622 deaths from typhoid fever which took place within a single year. Each one of them represents a loss of earning power to the families and a loss to the community, as well as suffering and weakness for those concerned. It is fair to say also that at least three-fourths of these were preventable, for some statistics placed upon the wall show that after the introduction of a filtration plant in the water supply of Pittsburgh the cases of typhoid fever were reduced by nearly three-fourths in the course of a year. Other figures show the deaths by accident, by tuberculosis, etc. Why is it that the community as a whole permitted this waste of human life to go on? It is not due to lack of engineering skill, for the highest ingenuity is displayed in the Pittsburgh mills. Nor is it due to lack of wealth, or business ability. It is mainly due to the fact that Pittsburgh, like the country as a whole, does not breed its own workers. A very large number of them are drawn from abroad. That supply keeps on coming in spite of typhoid fever and tuberculosis and the ten thousand annual deaths by accident on our railroads. A factory or a railroad must allow in its accounts for the deterioration of its machinery, or it will soon come to grief. But the United States is like a railroad company which can always obtain new locomotives by simply paying for the expense of running them. Such a company could well afford to disregard its scrap heap. But the human scrap heap is not so easily disposed of. The premature death of a worker means not simply the elimination from the industrial

world of another human machine, it often means a widow and children growing up in a state of poverty and want, it means a weak instead of a strong worker twenty years from now. Whatever the industrial structure of society may be at that time, whether capitalistic or socialistic or communistic, that means an economic loss. The action taken by us of the present generation to prevent that loss depends upon whether our social consciousness is able to project itself so far into the future as to be influenced by considerations which will perhaps never affect us personally. Socialism has emphasized the injustice of many of our social institutions. Posteritism points out our shortsightedness. If our motto is, "After us the deluge", we shall certainly take no thought for the morrow. But that was not the point of view of the founders of the Republic. For they framed the federal constitution, not only to "establish justice" but also to "secure the blessings of liberty for ourselves and our posterity."

THE AMERICAN WAY OF DISTRIBUTING INDUSTRIAL ACCIDENT LOSSES.

A CRITICISM.

MISS CRYSTAL EASTMAN.

We in America have rather suddenly grown wise about the evils of our employers' liability situation, and about the superior advantages of European systems of compensation and insurance. There is probably no one here today who would earnestly defend our way of dealing with industrial accident losses. In spite of this depressing dearth of opposition, however, I shall proceed to demolish the "American System" with considerable enthusiasm, for the sake of certain points which it seems to me important to bring out.

It is generally recognized that the reduction of the yearly loss from industrial accidents is a grave issue in national economy. We are not here, though, to discuss the reduction of that loss, but the distribution of it,—also a question of national economy. It is good private economy to make the least possible deprivation out of a loss, and it is good national economy. But nations have an advantage over individuals in adjusting their losses, for a national loss can be distributed in various ways among the individuals who make up the nation. I would criticise our present scheme for distributing the industrial accident loss, first of all, on this ground of national economy. Leaving aside for the present considerations of justice and practical operation, we may say with some confidence that the wisest national policy would be so to

distribute a loss that it would bear with the least possible hardship upon individuals. With this in mind, we turn to the actual present distribution of the loss through industrial accidents.

The bulk of it falls, in the shape of lost income, upon the injured workmen and their families, or upon the dependents of those killed. In some cases the employer shoulders a small share of this burden by making, voluntarily or under compulsion, a money compensation to the injured or his dependents. Thus out of 304 cases of men killed in industrial accidents in Allegheny County,—all of whom were contributing to the support of others, and two-thirds of whom were married,—eighty-eight of the families left received not one dollar of compensation, ninety-two families received enough to barely cover funeral expenses, sixty-two families received less than \$500. In other words, 59 per cent of these families were left to bear the entire income loss, and only 20 per cent received, in compensation for the death of an income provider, more than \$500—a sum which would approximate one year's income of the lowest paid of the workers killed.

In injury cases, we find about the same situation :

Married men	56%	received no compensation.
Single men, contributing to the support of others, 69%		received no compensation.
Single men without dependents.....	80%	received no compensation.

Looking at these figures in a different way, we find that for 259 injury cases the sum of income loss up to the date of investigation (one year or less from the time of the accident) was \$52,509. The total compensation for these cases amounted to \$12,000,—less than one-fourth of the first year's loss. The \$12,000, however, is a fixed and

settled sum, while the \$52,000 will go on increasing until all the men who have received serious permanent injuries are dead, or have reached an age at which without the injury they would have ceased to be income getters. Take, for instance, the cases of six men who were totally disabled for life: four of these men will walk on two crutches for the rest of their lives, one lost an arm and a leg, and one is paralyzed. Of these six men three received no compensation whatever, one \$365, one \$125, and one \$30. The total loss of income for these men up to the end of their lives, according to their earnings at the time of injury and the mortality tables, will amount to \$12,365. The total compensation for the six cases amounted to \$520,—in other words 4 per cent of the loss.

The total loss to the families of 193 married men who were killed, figured on the same basis (but subtracting \$300 a year to cover maintenance of the man killed), will amount to \$2,754,357. The total compensation made to these 193 families was \$72,039.

If these figures are typical, then we must conclude that the share of the loss borne by employers in the way of compensation is very small. Social workers will be quick to conclude that a great share of this burden must eventually be borne by the community through some form of charity, public or private, organized or individual. On this point the Pittsburgh study resulted in some significant and rather astonishing figures. Out of 526 workmen killed the city had the expense of burying six. Apart from this, there were, out of 825 cases studied, so far as we could discover, only seven in which any demand had been made upon organized or institutional charity; and in all of these seven the items of relief were very small. For instance, two orphan children are being cared for in an asylum and one blind old man whose son was killed

received \$1.50 a month from the county for part of a year.

The list of those aided by private individuals outside the immediate family is a little longer. Thirty-eight funerals were paid for by collections among friends, neighbors, or fellow-workmen; nineteen families received other help from such private sources. These instances range from that of a man who was boarded for nothing while he was disabled to two cases of systematic begging as a source of income. All this private, individual aid comes direct from the working people. Even the two who beg, beg from their own class. One, a widow with four children, begs at the Slavic Church door; the other begs at the mill gate on pay day.

Adding these two lists together we have, out of 825 cases studied, forty-four funerals paid for by charity and twenty-six instances of other aid from outside the immediate family.

This situation is partly explained by the fact that 149 of the men killed left dependents in Europe, and in nineteen other fatal cases the family went back to the old country soon after the funeral. In other words, 43 per cent of the fatal accidents in the Pittsburgh district leave a poverty problem not in America but in Europe. If we were discussing national morality, instead of national economy, we might pause to consider the ethics of this situation.

This statement as to the amount of relief given must be further qualified by the fact that we covered the life of the family for only about one year after the accident. This thought plunges us into the region of probability and guess work. Undoubtedly some of these families will become a burden upon the public. How great the burden we can only surmise. Statistics cannot help us

here. As a last resort, I turn to personal impression and private opinion. Judging from the pride and self-respect I found among these people, the energy and resourcefulness they exhibited in the first year's struggle, and from their generosity and family loyalty, their willingness to help each other,—I think that very few of them will ever become a burden upon American institutions of relief.

We have seen that compensation from employers covers an exceedingly small part of the loss, being in sixty per cent of the cases nothing at all. We have seen that the community, so far as the indications of this study go, bears an inconsiderable share of the loss. There are but three parties concerned, and it needs no further reasoning to show that the income loss from industrial accidents in the Pittsburgh district falls directly, almost wholly, and in all likelihood finally, upon the injured workmen and their dependents.

We were speaking of national economy. Is the policy or lack of policy which allows such a distribution of the loss to continue a policy of national economy? It might be answered: "Why not? You have shown us that few of these families become destitute, that they do not come back upon our poor boards, our institutions, our charitable societies. Does not this prove that they are equal to the burden? Why interfere?"

But, we do not maintain public schools in America because we think uneducated men will become a direct economic burden on the nation. We maintain them because we know that a nation's worth in the long run is measured by the average intelligence and ability of its individuals. We must apply the same wisdom to this problem. If the suffering of these numberless income losses means hardship and unfulfilment in individual families, then it means national deprivation. Does it mean

hardship and unfulfilment? For answer we will limit ourselves to certain figures with regard to the families of married men who were killed. We were able to follow the fortunes of 132 such families. Grown children were already working in some of these cases, and a fair family income remained even after the husband and father was killed. In a few instances a widow only was left and she was provided for by insurance. Six per cent of the widows left by the year's fatalities remarried. In such cases the loss of income meant perhaps no actual hardship. But in 59 out of the 132 cases the widow went to work,—cleaning offices, washing, taking boarders, keeping a store,—anything that came easy. Almost invariably this meant hard work, long hours, poor pay, and in most cases children neglected. It was the bitter unrewarding struggle of one person trying to do the work of two. Among these 132 families, twenty-two children were taken out of school and put to work during the year after the accident, fifteen of them being under sixteen. Here is a measurable hardship,—children deprived of the unburdened growth and education they might have had. The lives of many more children, as they grow to a working age, will be affected by the continuing absence of normal income. In nineteen cases the standard of living was lowered by a reduction in rent. One family with six children had lived in four rooms for which they paid \$12 a month; they were found one year after the husband was killed living in one room, for which they paid \$4 a month. This is an unusual case. The average reduction in rent in these nineteen cases amounted to \$5.

In thirteen cases the widow took her children and went to live with her parents. This is but a shifting of the burden within the family. It means the crowding of a large family in small quarters. It means burdening an

old man with the necessity of providing for a young family at a time when he should be letting go of things.

In thirty-five cases the immediate relatives helped in some other way, by taking a child, by giving money, etc. This too means hardship, because the aid is given not from surplus but from sacrifice. If a workingman's wife with six children saves something to give to her brother's widow left with four, it means real deprivation. If a workingman gives one-half of his earnings to a widowed sister with a family to bring up, it means sacrifice. If a young man about to set up a home of his own is obliged to keep his girl waiting because he must go back and take the place of a father killed, this is hardship, unfulfillment.

Beside these reckonable hardships there were many small intangible indications of poverty in these families. Such, for instance, is an extreme economy on food and clothes and recreation, the giving up of cherished projects, the breaking up of families, etc.

These, then, are some of the individual and family hardships that resulted from the loss of income in 132 fatal accident cases. With cases of long disability from accident we find the same situation, except that the problem is further complicated by having a sick man on hand to feed and care for,—an invalid whose recovery is delayed by the very conditions of increasing poverty and anxiety, which his injury caused, and which his recovery alone can terminate. The situation of a workingman disabled by injury and at the same time deprived of all his income is somewhat analogous to the situation of a man confined in a debtor's prison in the old days in England. They said to the debtor, "In order to get out you must pay your debts, but in order to pay your debts you must get out". We say to the disabled workmen, "In

order to recover you must have income, but in order to have income you must recover".

It is not necessary to point out that these individual hardships are a tax upon the community's real prosperity. Repeated in thousands of families throughout the country, as they are today in America, they amount to a great negative force working away in dark places to undermine the slow-building foundations of our national welfare.

Instead of making the least of the industrial accident loss, we are making the most of it. We are allowing the bulk of it to be borne by those least able to bear it. We are distributing it so that it means the greatest possible amount of hardship to individuals. My first criticism of the "American System", therefore, is that it makes out of what is perhaps still a necessary national loss an absolutely unnecessary amount of national deprivation.

Are there, then, any considerations of justice which make it worth while for us to hold on to this system? I think not. In the first place, our law of master and servant, even as modified by employers' liability statutes, can be proved unjust on the basis of old individualistic legal theory, as an unwarranted departure from the general law of negligence. In the second place, according to the broader ideas of social justice based upon modern industrial organization, injuries and deaths which occur in the course of work are among the costs of production, and should be reckoned and paid for out of the profits of the industry. The workman who is injured, the dependents of those killed, have lent their capital to the furtherance of an industrial enterprise; they cannot justly be left, as the result of an accident, without their capital and without anything to show for it, while the enterprise continues to make profits. The disabled workmen, the widows and orphans, are in a certain sense creditors of the industry.

We conclude, therefore, that our way of distributing these losses cannot be defended on grounds of individual or social justice.

We come to the last consideration—practical operation. Perhaps national economy and justice would be considered theoretical grounds. Here, however, we are on everyday footing. How does the system actually work? I need only mention the familiar and altogether undisputed evils of our employers' liability law in operation:

- (A) The state is put to the cost of much fruitless litigation.
- (B) The money spent by employers in fighting suits, avoiding suits, etc., amounts to quite a heavy tax, and yet results in little actual compensation paid.
- (C) Almost half of this compensation received from employers goes for the fighting necessary to get it.
- (D) The compensation, when there is any, is delayed while the need is immediate.
- (E) Lawyers on both sides are encouraged to dishonest methods.
- (F) Misunderstanding, bitterness, and distrust between employers and employees is fostered.

Out of these difficulties in the actual operation of the system have grown such institutions as employers' liability insurance, and what are generally known as relief associations. These we must consider with a view to finding out whether any true solution of the problem lies along their lines.

Liability insurance, as is well known, is not intended to insure the workmen, and does not affect the distribution of the loss so as to relieve the workman of any of his burden. If anything, it makes the position of the injured

man more insecure, because the employer, when he has paid premiums to relieve himself of legal liability, very often feels himself relieved also of moral responsibility for his injured workmen. The liability company, however, contracts to take over his legal liability only. Thus whatever feeling of moral responsibility existed is lost in the transfer.

Furthermore, under our present laws, this kind of insurance is bound to be wasteful and expensive because so many incalculable uncertainties enter into the risk. On account of the high premiums, and because it hurts their relations with their employees, I found the large employers in Pittsburgh rapidly abandoning liability insurance. Relief associations, on the other hand, are on the increase. They are of every conceivable variety. We shall not consider here those of a purely voluntary character, in which no contract relieving the employer of liability is made. Such organizations, so far as I can see, do no harm and are of very decided benefit; but they are giving place, in Pittsburgh at least, to relief associations of another type.

A relief association is primarily an organization of employees for the purpose of providing benefits in case of injury, sickness, old age, or death. We are here concerned with these organizations merely as a means of insuring against accident. Many employers have organized such associations, seeing in them a chance to accomplish certain aims of their own, while at the same time encouraging forethought and lessening distress among their employees. These aims are:

- (A) To bind the employees' interest to the company.
- (B) To weaken unionism by withdrawing employees from its benefit schemes.
- (C) To relieve themselves of legal liability by contract.

The accomplishment of these objects, I hold, is of doubtful social value.

In relief associations founded with these motives we find that membership is made a condition of employment whenever the employer is in a position of advantage in making the bargain. We find, also, that in the contract of membership there is a clause by which the member agrees that if he accepts benefits in case of injury he will relieve the employer of all legal liability in connection with the accident, and that he will sign a full release of his claims. This contract applies to the beneficiaries in case the member is killed. The compulsory character of these associations, the fact that membership is actually made a condition of employment, is the source of most of the evils inherent in them. I will briefly summarize these evils.

1. The employer is freed from the deterrent effect of the civil law, which is wholesome so far as it goes, and no tax is exacted from him sufficient to take the place of that deterrent. In the Pennsylvania Railroad Relief Association, for instance, the company pays the expenses of management and guarantees the fund, but makes no other contribution. Benefits are paid out of dues collected from members.

2. The workman is forced, as a condition of employment, to make a contract whereby he must in case of injury either lose the benefit of all the dues he has paid or give up his legal right to sue. Thus, practically, the workman gives up a future legal right by a contract in the making of which he has not actual freedom.

3. Many workmen who are not able or do not care to carry two kinds of insurance, by being compelled to join a relief association, are withdrawn from the union insur-

ance benefit schemes, which are the strongest feature of many unions.

4. Men who pay dues to a relief association upon which they have no claims for benefits after they leave a certain employment have a strong incentive to remain in that employment. Thus (a) the free movement of labor is interfered with, and (b) unions are in a second way weakened by this inducement not to strike.

In short, here are serious dangers to the real freedom of the workers, individually and collectively—a freedom which it should be our constant interest to conserve and increase.

Moreover, while a great deal of wastefulness and strife is avoided by these associations, while providence is encouraged and distress in a measure relieved, nevertheless such associations do not very greatly affect the distribution of income loss from industrial accidents. The bulk of the burden falls upon the workman just the same, whether he is encouraged to provide for it by previous small deprivations or left to meet it in his own way. But the establishment of such associations does tend to create the impression that the problem is solving itself, that the employer is voluntarily insuring his workmen, and that there is no need of legislative interference. The eyes of those concerned are blinded to the fact that national deprivation and social injustice continue to exist; thus legislative action is delayed.

So far, in respect to its practical operation, I have criticised our way of distributing industrial accident losses, on the ground (1) that it is cumbersome, wasteful, and productive of strife, and (2) that the institutions which have come into existence as a result of these difficulties of operation furnish no real solution of the problem and contain serious dangers.

What is possibly the most important consideration in the actual operation I have left to the last,—namely, its influence in preventing accidents. It is impossible to discuss compensation for industrial accidents without touching the question of preventing accidents. The bearing of one upon the other is obvious and of the greatest importance. When compulsory compensation for all accidents regardless of negligence is suggested, someone always objects that if we assure the workman compensation we shall increase his carelessness. I don't know anything about psychology, but I have an idea that this is not psychologically sound. A workingman's recklessness is not deliberate but spontaneous and impulsive, although it may become habitual. When he is careful it is not for remote reasons but because of immediate danger. It is not reasonable to suppose that a railroader who, when a coupler fails to work, is in the habit of taking his time, of signaling to the engineer, and of waiting for the cars to come together instead of going between them, would, under a different law, say to himself, "Well, I can make this thing work quickly and easily by going in between the cars. It's risky, but if I lose an arm I'll get something. If the cars come together and crush me, my wife will get three years' wages." Certainly in the presence of immediate danger the preservation of life is the strongest motive; if the fear of death does not insure caution in the workman we cannot hope to instill it by holding over him the fear of poverty. Even the knowledge that his wife and children might suffer for his death would not greatly modify his instinctive attitude.

In discouraging carelessness on the part of the employers, however, the matter of compensation—the size and sureness of the penalty they must pay for the accidents—is an important factor. The employer's careless-

ness is usually of the deliberate variety. It is involved in the construction of his plant, the selection of materials, the engaging of foremen, the making of repairs. The act or omission which constitutes his carelessness is remote in time from the risk to life and limb. Nor is it a risk to his own life and limb, but to the lives and limbs of others with whom he has no personal relation and whom he has perhaps never seen. At the time when he is careless he is in a position to consider the cost. Therefore the amount and inevitableness of the penalty put upon him is an exceedingly important factor in the prevention of those accidents which are due remotely or directly to his carelessness, indifference, or haste.

In this respect our present laws can be most severely criticised. The penalty is so rarely and unevenly imposed, the chances of escaping it are so varied and incalculable, that the civil law provides little incentive to care in the employer. I recall four inquests, each of which described the death of a man in a steel mill as the result of a heavy load of metal falling from a crane upon him. In each case the load fell because a chain broke or a hook pulled out. In one case the crane operator testified that he never knew of hooks being inspected. Two other men, employed as car cleaners by coal companies, were crushed while working underneath a car which stood on a siding. In each of these cases another car or an engine ran in on the siding without warning and bumped the car that the cleaner was under. In one case the brakeman testified that it was every man's business to look out for himself. In the other the superintendent said that he "didn't know whose duty it was to warn men underneath the cars, but he would see that some one might do it."

The cost of these six cases to the employers is significant. The men were all foreigners. One of them lived

seven days, costing the company \$7 besides his funeral expenses. In the other steel-mill cases the funeral was the only expense to the employer, amounting to about \$75 in each case. Deaths at the rate of \$75 each are not going to be a matter of serious economic concern to a present day corporation, however they may appeal to it on ethical grounds. One of the coal company cases cost the company nothing, the funeral being met by a collection among friends. The man in the other case belonged to a relief association, and by the terms of his contract the employer paid \$75 at his death.

Certainly it is not sensational or extreme to say that more attention would be given to the inspection of chains and hooks, that more care would be taken to provide adequate signal systems for men working in defenceless positions, if this sort of killing "came higher".

We have criticised the present distribution of industrial accident losses on the ground that it is poor national economy, that the basis and underlying principle of it is unjust, that in actual operation it wastes and scatters resources, that the voluntary institutions which have become part of it do more harm than good, and that it is of little use in preventing accidents.

In planning new legislation along this line, we must have constantly in mind these evils. We should therefore require of any new system which we adopt:

1. That it make compensation for injury and death from industrial accidents compulsory upon employers. Any scheme which leaves the alternative with the employer fails to recognize and correct the injustice of the present distribution.

2. That it make this compensation uniform and definite, and sufficient in amount (a) to shift a considerable

portion of the loss from the injured workman to the employer (and thus ultimately to the public), and (b) to encourage the greatest care in the employer.

3. That such compensation shall not depend upon a contract between employer and employed. For in such a contract there are dangers to the actual freedom of the workers, dangers against which the law cannot protect them.

WHAT FORM OF WORKINGMEN'S ACCIDENT INSURANCE SHOULD OUR STATES ADOPT?

M. O. LORENZ.

One year ago Prof. C. R. Henderson read a paper before the American Association for Labor Legislation in which he told of the educational endeavors of the Illinois Insurance Commission. Such has been the progress in public opinion that today we may take for granted the desirability of accident insurance and ask,—What form of law should our legislatures adopt? I shall attempt to answer that question, especially with reference to conditions in Wisconsin, not with the thought that the answer is in all respects correct, but with the hope that the discussion which follows will be focused upon certain difficult points.

In order, however, to justify the plan to be submitted, I think it may be well to summarize the arguments which may be adduced in favor of a system of accident insurance for workingmen, and without dwelling on them at length for the reason stated.

1. One of the strongest arguments is that such a system would be of great assistance in the prevention of accidents, both because of the full knowledge we should get about accidents, and because the administrative machinery of a system of insurance can do much to prevent them. Note, for example, that the rules of the accident fund of the South Metropolitan Gas Company of London give as the objects of that fund,—first, prevention, and secondly, compensation. In bold faced type, we read:

"Prevention is the chief object. 'Prevention is better than cure'. How poor a substitute for prevention is money compensation. The directors hope, with the hearty coöperation of all officers and workmen, to reduce accidents to the smallest possible number. All are requested to exercise all possible care and forethought, and to report without loss of time, any defects in plants or appliances to the foreman in charge of the work or to the engineer of the station.

"The directors thankfully acknowledge this coöperation in the past, for since this scheme was started in 1897 the proportion of accidents per 1000 subscribers to the fund has been greatly reduced, as is proved by the following figures:

1898.....	82 per 1,000	1903.....	56 per 1,000
1899.....	76 " 1,000	1904.....	50 " 1,000
1900.....	71 " 1,000	1905.....	44 " 1,000
1901.....	64 " 1,000	1906.....	37 " 1,000
1902.....	52 " 1,000		"

In this particular accident fund, the device of a jury of workmen to investigate each accident, and the grading of the workmen's contribution at each station according to the number of accidents in that station, are thought to work toward prevention.

It appears, therefore, that these two objects are not wholly distinct, and we may legitimately mention the desirability of preventing accidents as one of the strong arguments in favor of a system of compensation, even though more direct ways of prevention are also desirable.

2. The wasteful character of our system of damages for negligence is another important consideration. Take an illustration from the Wisconsin Supreme Court cases of this year. A man was severely injured for life by falling into a trench filled with hot water. The damages were \$6500, of which the sum of \$3500 was paid to his attorneys, and it is said that his expenses due to the acci-

dent are about equal to the balance. This case did not determine any important point of principle. The fact that the man was severely injured while at work was not disputed. The legal contest cannot be said to have served any good purpose. This case is typical, not of any rapacity on the part of lawyers, for such cases may require much work, but of a fault inherent in the system.

Another evidence of waste in our present system is found in the financial statements of the liability insurance companies. In 1907, according to their report to the Wisconsin Insurance Commissioner, about thirty-eight per cent of the premium was paid for losses, although this covers other forms than employers' liability insurance. In all of their business the casualty companies report commissions and dividends as being about three-fourths as much as their losses paid. These facts are not a criticism of the financial management of those companies, nor proof that they are not to some extent beneficent social institutions. The question is simply whether we cannot devise a better system.

3. The present system is unjust because there is no pretense of distributing damages according to needs or merit. The general rule in fatal or serious cases is to pay the smallest amount that will bring a release.

4. The present system undoubtedly creates ill-feeling between employers and employed. The principle of, get what you can out of the employer in case of an accident, makes each side suspicious of the other. I have in mind one workman whose hand was injured in a Milwaukee factory who said, "My employer kicks every time I come around and ask him for five dollars." Contrast this with the German system, where the employee receives from the post office his regular allowance as a matter of right.

5. To some extent industrial accidents necessitate charity. If people must be supported anyhow, it would seem better to give a definite right to a payment than to give the money in the form of a dole.

6. A system of workmen's insurance would undoubtedly relieve the courts of some vexatious litigation. The Supreme Court of Wisconsin had in 1907 about eighteen cases resulting from accidents to workmen. There would, it is true, be litigation under any system, but an insurance law undoubtedly would be more easily interpreted than the law of negligence, because the statement of facts would be subject to less dispute.

This bundle of arguments, with prevention, economy, and justice as the leading ones, is sufficient to constitute a cause for action, and we may proceed to take up specific plans of procedure; but before descending to details it may be well to consider some of the difficulties involved.

DIFFICULTIES INVOLVED.

1. We are confronted at the outset with the alternative of adopting a compulsory or a voluntary system. Some form of compulsory liability or insurance system with optional features certainly is the rule among nations that have legislated in this matter. Perhaps a distinction should be made between a compulsory and an obligatory system. An obligatory system imposes a duty to make provision in case of accident but leaves it optional how that obligation shall be met, whereas a completely compulsory system would make insurance compulsory and leave no option as to the method of insurance. This suggests the German distinction between *Versicherungszwang* and *Zwangszversicherung*.

The Illinois Commission plan is an example of a purely voluntary system. It simply says to the employer and

employees, "You may make a contract whereby the employer insures the workman and the workman agrees to give up his right of suit". We cannot point to any successful experience under such a plan. In Massachusetts the right of contracting out was given in May, 1908, but no action had been taken under the law up to December 1, 1908. Under all of the conditions, it may prove wisest to follow this plan, but it would be a confession of a weakness in our governmental system, for, in view of European experience, there can be little doubt but that we shall ultimately have a comprehensive system of workmen's insurance.

The plan which I shall submit to you makes some form of insurance practically obligatory, but leaves such options that it cannot be in any sense oppressive. An obligatory system has the advantage that it includes backward, reckless, and unintelligent employers as well as the public-spirited ones, and it includes the thriftless as well as the thrifty worker. It would give a broader basis for equalizing the shocks,—that is, with a large number of persons insured, there would probably be more regularity in the accident rate, and probably a smaller expense rate. It would help also in getting complete statistics, which is of the utmost importance for intelligent action in the future. I should be disappointed if our states adopted systems which did not permit of our having as complete statistics as are issued by the German government on this subject.

2. But what will the courts say about an obligatory system? Our courts are often represented as being opposed to progress. Perhaps there has been in the past some justification for this. The courts were under no compulsion, for example, except that of their own inclinations, to develop the fellow servant doctrine and the doctrine of

the assumption of risk, so far as these apply to dangerous industries. These doctrines give a clear illustration of legislation by the courts, and the trouble with this judicial legislation is that it has developed piece-meal, decision by decision, each step making it harder to retreat in order to make the theory square with the facts. The courts have assumed that certain things were implied in the wage contract, assumptions which were reasonable in employments not of a dangerous character, but unreasonable in modern, complicated, dangerous occupations. If the courts had been open to progressive ideas, they might have modified the law by recognizing a trade risk and the fact that an employer incurred some responsibility when he engaged in an enterprise which, assuming that degree of care which may be expected of human nature, was bound to result in so many killed and injured per 1000. They might, if they had taken account of economic facts, and had not been so much under the spell of *stare decisis*, have assumed that a "free and equal" workingman, before entering a dangerous employment, would contract with his employer that the employer was to assume part of the risks of the business.

But yet the courts have been somewhat too much criticised. They are the interpreters of our constitutions, and our constitutions may be the real barriers to progress. The courts have fully recognized that the right of private property, the right of free contract, and the right to engage in business enterprises, are not absolute, but are subject to considerations of public welfare. Show conclusively that a public evil exists, show conclusively that you have a remedy that is adequate and sensible and not too drastic, and you will find that the courts will not stand in the way unless some specific provision of the constitution is violated by your plan. The plan which I shall sub-

mit to you is a small regulation of property and of contracts, designed to be reasonable and practical, which contains nothing of class favoritism or confiscation, and which is to remove evils which in the words of an English statesman one may venture to call a great scandal. While some doubt as to the constitutionality will attach to any compulsory system, it is worth while to bring the matter squarely before our courts before accepting an unsatisfactory voluntary system.

3. There is the further difficulty of enumerating the industries to which such a system should apply. A voluntary system might avoid this difficulty, but a compulsory system cannot escape it. The English law makes short work of this perplexity by including all employments. In other countries we do find an enumeration of various industries to which the insurance system is to apply. Can a reasonable classification of industries be found according to which you can say to this class the insurance system shall apply, and to that class it shall not apply? If a man is injured in an employment where the accident rate is one per 1000, should he not receive compensation as much as if the rate in his industry were fifty per 1000? Again, if you compensate a man injured in a planing mill, why not also make your system apply to the farm hand killed by a corn shredder? This is a point of great difficulty.

It should be remembered that the problem before us now is not that of insuring workingmen against all injuries, for a good many are injured while not at work. That is a distinct problem. The idea is to cover the *extra hazard* due to their occupations, for it is this extra hazard which gives rise to the peculiar evils which we seek to remedy. It seems proper to make the basis of classification the *existence of a clear trade hazard*. We are all exposed to some risk of accident. Office workers, for ex-

ample, have their accident rate, but they have no occupational hazard for accidents. For some kinds of light manufacturing there might be practically no such special risk. It would be a matter of statistical detail to determine what occupations have such a special hazard. A satisfactory law should state clearly the principle of classification, but make the inclusion of special kinds of enterprises a matter of statistical detail. It would not be conferring legislative power on a commission if the inclusion or exclusion of an industry were made to depend on the ascertaining of a fact,—that is, whether the accident rate was more or less than the standard.

But it would be desirable to make some broad exceptions to this principle. Agricultural laborers should perhaps be excluded as being a class by themselves. There is more casual labor; more personal relations exist between employer and employed. Personal vigilance perhaps counts for more, as farming is a small scale industry. The large number of farmers would make administration difficult; and, finally, the evils constituting a cause for action have not been given prominence by cases arising out of farm accidents. Possibly it would be desirable to include the operations of dangerous forms of agricultural machinery where mechanical power is used.

4. Should the employer bear the expense alone or should the employee also contribute? I think, that under conditions existing in this country, we must decide in favor of a joint contribution. This would give both parties a financial interest in good administration. It would free the system from the charge of being a class measure, and would harmonize with the legal theory of the equality of men. Considering interstate competition, an adequate insurance might be a burden to the employer if he bore the expense alone. There is good reason to believe that

the scale of payments in the English act of 1897 could easily be borne by the employer. But that scale was hardly adequate. It did not provide for full medical aid.

5. How should the money be collected and administered? Some machinery is evidently necessary. The English method utilizes the machinery of the private liability companies. The German plan is to make employers' associations do much of the work. Both seem hardly applicable to our conditions. The waste of the private liability companies is one of the things we wish to avoid. Dividends and commissions have no place in a system of workingmen's insurance, and, on the other hand, it is questionable whether our employers would care to take the trouble to administer the German system properly, and whether we could vest employers' associations with the authority to impose fines and issue orders as the German associations do. To create private agencies and then to supervise them by an additional governmental machinery seems unnecessarily cumbersome.

The plan submitted provides for a system of direct state administration, with the option of insurance by employers' associations or other insurance agencies. A state like Wisconsin is not too large an area for one administration. The advantage lies in the simplicity and in making use of methods with which employers are already familiar. The plan does not preclude utilizing associations and committees of employers and employees to assist in the administration.

6. The prevention of malingering is an important consideration. That is not so large a problem in accident as in sick insurance, but it is something you have to fight against. A state administered fund would have in this respect to adopt the same method used by the liability companies,—the appointment of physicians and agents whom

it can trust to examine each case; but in addition to this the coöperation of employers and workmen can perhaps be enlisted by making it to their interest to reduce the number of claims by making the premium vary according to the accidents compensated in each establishment within certain limits.

7. How can damage suits be obviated? The English method does not try to do so directly but gives the workman the option to take more certain compensation, and the insurance company protects the employer in either event. But in the plan submitted the aim is to make these suits so unusual (by limiting them to cases of gross and flagrant negligence or wilful misconduct) that he need not insure himself against this contingency. To make this exemption fair from the standpoint of the workman, the employer should not, if such a suit be brought, be allowed to avail himself of the defense of contributory negligence except in cases of gross and flagrant negligence or wilful misconduct on the part of the workman injured. The plan submitted is as follows:

There should be a Board of Industrial Insurance Commissioners, the constitution of which is a matter of detail. This board would have the power to issue danger licenses to employers who wish to engage in dangerous employments, a license fee being charged therefor, with fine for refusal. Any employer having such a license would not be liable to a damage suit on account of industrial accidents happening in his establishment unless he was guilty of gross and flagrant negligence or wilful misconduct. The license fee would be graded according to the character of the industry, and according to the wage bill, with readjustments according to subsequent experience. The employer would have the right to deduct a sum equal to one-half the license fee from the wages

which he pays, this being assumed to be a part of every wage contract, unless written notice was given to the contrary both to the employer and to the board of insurance commissioners. When an employee gives such notice, his possible benefits would be diminished, as would also the license fee of the employer. The reason for putting the matter in this way is to include all employees unless they have a good reason for withdrawing. Under a voluntary system a workman must have foresight enough to enter an insurance scheme; under the plan proposed, he would be automatically included unless he takes the initiative in getting out. Thus there would be no danger of infringing his liberty, and in any case, he would still be entitled to a small compensation in case of accident. But if the employer had paid his share of the license fee on account of such employee, he would still not be liable to a suit except for gross and flagrant negligence or wilful misconduct. This is less favorable to the workman than the English law. If it is not thought favorable enough, matters should be balanced up, not by making damage suits easy, but by asking the workman to pay say one-third instead of one-half. In the exceptional cases of suit against the employer, which it is thought would be so unusual that he need not insure himself against that contingency, his defense would be weakened by abolishing the doctrine of the assumption of risk and the fellow-servant doctrine.

Instead of paying a license fee, the employer might obtain his license by furnishing proof that he had insured his men with some company or organization, the policy being like the standard policy prescribed in the statute, or equivalent to it.

The license fees would constitute a fund, out of which full medical aid and weekly or monthly benefits would be

paid. In general the cost would be twice as great as the English scale of 1897, the share of each party being about equal to present rates for liability insurance.

The board of insurance commissioners would have to employ administrative agents and medical inspectors as the liability companies do now. This does not mean that the state would be in the insurance business. The fund would not only be distinct from other revenues, but probably could not even be guaranteed by the state.

As already indicated the employments covered would be those which, according to the best statistics available, have an accident rate higher than that of office workers or retail mercantile employments, where there is practically no occupational hazard. Possibly farming, except where power machinery is employed, should be expressly exempted, and also persons engaged in interstate commerce.

The advantage of the plan here outlined lies in its simplicity and definiteness. The employer pays his license fee, and he gets protection which he does not have today even when he carries liability insurance, for frequently the damages allowed are greater than the limit specified in the policy. On the other hand, the workman or his dependents get a certain payment. State supervision will guarantee fairness and justice in the working of the system.

The plan is offered as simply one way out of a difficulty. Further discussion may show a better way.

An Outline of a Bill.

To create a board of industrial insurance commissioners, to establish an accident fund, to provide for licensing employers, and to amend the statutes relating to the liability of employers for damages to injured employees.

Section 1. *Board of Industrial Commissioners.* The

Insurance Commissioner, the Commissioner of Labor, and the Attorney General are created a Board of Industrial Insurance Commissioners to manage the accident fund. (The constitution of this commission is a matter of detail; it may be desirable to confine it to one department, or to create a new commission, or to have an incorporated body of a quasi public character, for which there would be precedent in the Horticultural Society and others in this state.) The state could contribute a definite amount annually for the expenses of this board.

Section 2. *Danger license.* After a specific date, no person shall engage in the employments specified in section 11 without a license from the board of insurance commissioners. This license must be renewed annually. Refusal to apply for a license or to comply with conditions necessary to obtain same, or to renew same annually, would subject one to a fine, graded according to the number of persons employed, such fines being paid into the accident fund, provided for later.

Section 3. *License fees—how determined.* It would be the duty of the insurance commissioners to classify the industries covered by the act in detail, according to the dangerous character of the industry. That this is possible is shown by the fact that the liability companies have done it. The fee of each employer would at first be determined by his classification and wage bill, but if subsequent experience showed that his establishment caused fewer accidents to be compensated than indicated by the accident rate of his class, his fee might be reduced not more than fifty per cent. This reduction would thus not be dependent on political or other favoritism, but according to scientific accounting. The general level of the fees are determined by the benefits granted in section 8, those benefits being arranged on the supposition that the fee-

would be about twice the existing cost of employers' liability insurance, one-half being paid by the employee as provided in the next section.

Section 4. Every contract whereby an employee agrees to work for an employer in the employments specified in section 11 shall be understood to authorize the employer to withhold from wages to be paid for such employment as much as one-half the amount which the employer must pay to secure a license from the board of insurance commissioners, unless the employee gives written notice to the employer and to the board of insurance commissioners to the contrary. Any employee who gives such notice shall be entitled to only one-half the benefits specified in section 8, and the employers' license fee shall be diminished accordingly.

(The reason for putting the matter in this way is to include all employers unless they have a good reason for withdrawing. Under a voluntary system, an employee must have foresight to enter a scheme; under the plan proposed he is automatically included unless he takes the initiative in getting out. Thus there is no real danger of infringing his liberty. In any case, he would still be entitled to some definite compensation in case of accident.)

Section 5. *Licensed employer not liable—exception.* Any employer who has obtained a license according to section 2 shall not be liable to prosecutions for damages to employees on account of accidents for which the injured employee is entitled to compensation under section 8, unless the proximate cause of the accident is the gross and flagrant negligence or the malicious or wilful misconduct of the employer, or unless the employer has knowingly refused to comply with the reasonable orders of a factory inspector which might have prevented such accident.

(This practically exempts the employer. It is less favorable to the workman than the English law. If it is not thought favorable enough, matters should be balanced up, not by making damage suits easy, but by asking the workman to pay say one-third instead of one-half of the license fee.)

Section 6. *Liability of employers in case of gross and flagrant negligence or wilful or malicious misconduct.* In an action brought by an employee against his employer in the exceptional cases provided for in the preceding section, the contributory negligence of the employee involved in his voluntarily entering into a dangerous employment shall not be a bar to recovery. Nor shall a slight inattention or mistake on the part of the workingman injured or any negligence on the part of a fellow servant be a bar to recovery. But gross and flagrant negligence or malicious or wilful misconduct, including repeated disobedience to reasonable rules for the conduct of the work which the employer has attempted to enforce, shall be a valid defense for the employer.

Section 7. *Diminished benefits to employees who resort to a suit.* Any employee who brings a suit against his employer for damages on account of an accident, and who otherwise would be entitled to full benefits under section 8 of this act on account of such accident, shall forfeit such part of such benefits as the employer's contribution of the premium paid on account of such employee. If without such suit he would be entitled to only half benefits because he has made no contributions to the employers' license fee, he shall receive no benefits.

Section 8. *Benefits to injured or their dependents.* When an employee to whom this act applies as specified in section 11 is injured while at work for his employer, and as a result of such work, he or his heirs shall, regardless of negligence, be entitled to the following benefits to be

paid out of the accident fund created by this act, except that no benefits shall be paid for injuries which have been intentionally self-inflicted, and unless the benefits are modified according to section 4 or section 7: (1) *in case of death*,—funeral and other expenses due to the accident, and a pension to widow or dependents for a period of ten years, equal to half wages, with a possible commutation to a lump sum; (2) *in case of incapacity*,—full medical aid and as much as one-half wages during incapacity, the exact amount depending on the degree of incapacity.

Section 9. *Payment of benefits.* (1) The board of industrial insurance commissioners shall appoint such administrative agents, medical inspectors, and make such necessary regulations that, when an accident happens that is covered by this act, the benefits may be paid promptly. (2) The said board may refuse to pay the benefits if the person refuses to submit to a medical examination to determine the degree of incapacity or if it discovers intent to defraud the accident fund.

Section 10. *Accident Fund.* The license fees and fines provided to be paid by this act shall constitute an accident fund, in the custody of the State Treasurer, payments from which would be made on the order of the Board of Insurance Commissioners. Provision would have to be made for the disposition of a possible surplus or the covering of a possible deficit. The latter might be done by authorizing a special assessment upon licensed employers, or by requiring an entrance fee until a guarantee fund had been accumulated, but the state could not guarantee the fund directly. Some of the general expenses of administration could be done by direct appropriation.

Section 11. *License may be obtained by substituting other schemes.* If any employer employing an average

of 1500 men for five years preceding the enactment of this law, or any association of employers who have collectively employed an average of 1500 men for five years preceding the enactment of this law, shall organize a voluntary insurance organization which will guarantee to the men in his or their employ benefits fully as large and fully as advantageous in method of payment as the benefits specified in this act, and at no greater cost to the employees, or if an employer shall prove that he has purchased a policy from an insurance company, which policy guarantees benefits fully equal in amount and method of payment to those specified in this act, accident licenses shall be issued to such employer or employers without payment of a license fee into the accident fund.

(Further provision would have to be made for complete publicity and statistical reports in the form prescribed by the board of insurance commissioners.)

Section 12. *Employments covered.* The employments covered would include all that have a clear trade hazard, except farming and except persons engaged in interstate commerce.

Section 13. *Settlement of disputes.* If the amount of compensation granted by the board is believed to be erroneous the employee or employer may appeal to a board of arbitration, previously organized in each locality. From this board an appeal could be taken to the insurance commissioners and thence to the courts if the decision was not satisfactory to all concerned.

WORKINGMEN'S ACCIDENT INSURANCE— DISCUSSION.

F. L. HOFFMAN: The two interesting and instructive addresses by Professor Lorenz and Miss Eastman touched upon a most important phase of modern labor legislation. A tendency toward a more adequate method of labor protection is manifest throughout the world, and it is not, of course, limited to the United States. The plan proposed by Professor Lorenz is ingenious, but not, in my opinion, a practical solution of the problem which confronts us. I think we are all agreed that the risk to life and health in industry should not fall upon the wage-earner but upon the industry itself. The facts presented by Miss Eastman are a most valuable contribution to our very limited knowledge of the economic loss to wage-earners resulting from industrial accidents. That of course is only one important aspect of the problem, since industrial diseases, properly so-called, are an equally important cause of industrial distress. I wish Miss Eastman had gone further into the facts as she found them and had told us more about individual cases, which, in their final analysis, present the real problem which requires to be solved. Before there is any practical value in discussions of proposed labor legislation, most of all when such legislation involves consideration of insurance, a larger basis of fact is required, and the method to secure such fact is made clearly evident by the researches of Miss Eastman into the industrial accident problem at Pittsburg. As I conceive the problem, from perhaps an entirely different point of view, the best prac-

tical solution, for the time being at least, is offered by legislation along the line of the British Workman's Compensation Act of 1906. That act is not limited to industrial accidents, but also includes compensation for industrial diseases, and the term "workmen" is made to include everybdy who is in the employ of another, with the exception of persons earning more than 250 pounds sterling per annum unless engaged in manual labor. The act, which went into operation on July 1, 1907, brought six million more workers within its privileges. It has properly been pointed out that among the most salutary of the new provisions contained in the schedule are those which require compensation in the case of death to be paid into court, and which require all agreements for the redemption of weekly payments by a lump sum, and agreements for settlements with dependents, or with persons under a legal disability, to be registered in court. The former of these provisions will go far, in the opinion of a commentator on the act, Mr. W. A. Wills, "toward preventing the squandering of these sums and toward securing their application to the purposes for which they are awarded."

I am of the opinion that the more carefully the workings of this act are considered, the more applicable this form of labor compensation will appear to be to our own method of legal procedure and conceptions of social justice.

With regard to the German system of so-called government insurance, it is necessary to keep in mind the all-important fact that what the German government does is not to furnish insurance in the strict sense of the term, but that the system is in fact and in truth a modified employers' liability on the one hand, and a modified poor-law provision on the other. I am not aware of anyone having

made a sufficiently thorough, critical, and analytical investigation of the system, with the one possible exception of the distinguished president of this Association; and, before any definite conclusions are arrived at with regard to the applicability of this system to any state in the United States, a much more competent and thoroughly impartial investigation of the actual workings of the different laws will be necessary, and in any event decidedly advisable. Personally I am of the opinion that, while the laws have accomplished much good, they have not on the one hand eliminated socialism, nor on the other have they brought industrial peace. The socialistic vote in Germany was never as large or as influential as it is at the present time, and there never have been as many strikes and lockouts in Germany as have occurred within recent years. It will not do in so important a matter as this to rely upon the official verdict, or the official publications written chiefly in praise of the working of the system, but what is needed is a thorough and dispassionate examination into the actual facts.

Such work as this Association is doing in advancing knowledge and by promoting an exchange of views must needs prove of great benefit in the course of time, and the members of this Association are to be congratulated on the success which has crowned their efforts to coördinate the work of the American Association to the corresponding efforts of similar associations throughout the world. After all, however, I can not but think that in this particular matter of adequate labor protection we are likely to derive the most practical results from a careful study of the English Workmen's Compensation Act of 1906, and of the painstaking investigations which have been made into the facts and conditions of English industry as incorporated in the most valuable report

of the Departmental Committee on Industrial Diseases. It is something very considerably to the credit of the state of Illinois that a similar commission should have been appointed in that state, and it is equally to the credit of the state of Wisconsin that there, for the first time, a beginning should have been made to inquire into the actual facts of industrial accidents. What we are in need of is more light, and towards this end both of the papers which have been read are valuable contributions of their kind.

C. R. HENDERSON: The criticism of Miss Eastman on the bill for workmen's insurance proposed by the Illinois Industrial Insurance Commission is just. The report which accompanied the presentation of the bill will show that the commission itself was fully conscious of the imperfections which Miss Eastman has pointed out. We said that we regarded this bill chiefly as the means of awakening public attention and educating public sentiment. We did not regard it as final. The best legal advice we could obtain did not encourage us to go a step further than we went. Every member of the commission desired compulsory insurance in some form, but we were instructed that no such bill would have a hearing in the legislature or would, if it became a law, pass our conservative Supreme Court. We did outline in the report for the future a plan of insurance somewhat similar to that which is embodied in the German social legislation. It is our judgment now that after two years of agitation, our public will demand a law which goes further than we thought then had any chance with the legislature and with the courts, and bills will be presented which express this advance in public thought on the subject. The leading newspapers, which a short time since totally ignored the

whole subject, are keenly alive to the issue, and give us great aid in educating the public.

DR. FRANKEL: I am somewhat timed in speaking on this topic since I am one of those individuals referred to by Mr. Hoffman, who has just returned from Europe and who has been obtaining his information to some extent from the officials.

I have, however, had opportunity to interview not only officials, but the employers of labor in Germany as well; and, while Mr. Hoffman's solicitude for the latter group is very much to be admired, I doubt very much whether the German manufacturer himself appreciates it. From the interviews which I had with them, they do not seem to feel that they are at all in a bad plight. They fully realize that a burden has been imposed upon them, in that they must pay the cost of the accident insurance. On the other hand, they realize further that the introduction of compulsory accident insurance in Germany has tended to the improvement of industry in general. Partly as a result of this form of insurance, Germany has risen from ninth to third in the list of countries in exports.

Mr. Hoffman is right in assuming that we should not proceed in endeavoring to secure any new employers' liability legislation until we have sufficient facts at our disposal. I admire his caution, but there is a point beyond which caution is unnecessary. Mr. Hoffman's own statement that thirty thousand men were killed by accidents during the past year, with the admirable statistics presented by Miss Eastman this morning, are in themselves sufficient to indicate the need of a change of legislation from that which is common in the United States today. It is immaterial whether there are thirty thousand of such accidents or forty thousand. The important

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point to recognize is the existence of these conditions, and the necessity of taking some comprehensive action to overcome them.

JOHN MARTIN: The scheme of Accident Insurance recommended by Professor Lorenz appears to provide that a workman may, at his option, contract out of it and that his employer then ceases to be liable for the share of his contribution to the fund corresponding to this workman's share. Would not every reactionary or backward employer practically require every workman, as a condition of employment, thus to contract out of the act?

THE CANADIAN INDUSTRIAL DISPUTES ACT.

A. SHORTT.

The object of this paper is to give some account of the practical operation of the Canadian act for the prevention of strikes or lockouts arising from industrial disputes connected with public utilities. The observations, deductions and conclusions which are here presented are based chiefly upon the experience of the writer as chairman of eleven different boards of conciliation and investigation, established under the act, and dealing with disputes affecting almost all of the typical forms of public utilities to which the act applies, namely,—railroads, including their telegraph services, lake and river shipping, street railways, coal and metal mining.

No attempt is made to give a systematic analysis of the act, or to discuss in detail the merits and defects of its various provisions. This service has been very thoroughly performed by Dr. Victor S. Clark, of Washington, in his admirable report on "The Canadian Industrial Disputes Investigation Act of 1907", undertaken at the instance of President Roosevelt, and published in the *Bulletin of the Bureau of Labor* for May, 1908. To this report I would refer those who desire to obtain the most complete information available as to the nature of the act, the objects of its various provisions, and the general results of its operation up to the time of the preparation of the report last spring. With so excellent a background for general reference, I feel justified in devoting my paper to certain special observations and deductions derived

from a somewhat intimate experience of the operations of the act.

The title of the act in question, which came into force about the beginning of April, 1907, is "An Act to aid in the Prevention and Settlement of Strikes and Lockouts in Mines and Industries connected with Public Utilities". The short title is "The Industrial Disputes Investigation Act, 1907". But the still shorter title by which it is commonly known in Canada is "The Lemieux Act", so named from the Minister of Labour in the Dominion Cabinet. Yet, as Mr. Lemieux has frequently pointed out, the act was chiefly compiled by the Deputy Minister of Labour at the time, Mr. Mackenzie King.

The act does not undertake to deal with all labour disputes, but only with those affecting public utilities; and even here it does not provide for a compulsory settlement as the result of arbitration. It simply requires that before a strike or lockout may take place there shall be a reference of the dispute to a board of conciliation and investigation composed of three members, one appointed by the employer, another by the employees, and a third selected by these two, or, in default of their agreement, by the Minister of Labour. Should this board be unable to effect a settlement, then, on the presentation of its report to the Department of Labour, the parties are free to adopt any method of settlement they please, including a strike or lockout. Thus, though the board of conciliation and investigation has considerable legal power in the way of summoning witnesses, taking evidence under oath, investigating books and premises, etc., it has no legal power to force a settlement between the parties. If, however, the methods of conciliation should fail to bring the parties to an agreement, the results of the investigation are to be placed before the public in the shape of the

report of the board, through the medium of the Labour Department, and it is expected that this report will afford a basis for the formation of an intelligent public opinion, in the face of which neither the employer nor the employees would care to maintain a position adverse to public sympathy. So far as the experience of the act for some eighteen months may be judged, the general expectation as to the efficiency of its methods has been reasonably justified. Yet, naturally enough, it has met with criticism from both sides, as has indeed been the case with practically all legal or other devices for the adjustment of conflicting interests.

Having outlined the purpose of the act, we may take up the actual operation of a typical board of investigation and conciliation, in dealing with a matter in dispute.

Where both parties have nominated a member of the board, and the chairman has either been agreed upon by the other members or, in default of their agreement, has been appointed by the government, each party as a rule undertakes to present its own case before the board. Where, however, one or other party has refused to nominate a member of the board, either claiming that there is nothing to arbitrate or that it is impossible to recede from the position which they have taken, the board, though completed by the Department of Labour, is very unlikely to effect a settlement. The writer of this paper having had to face two such cases, it was felt that the first thing to be done was to get the objecting party to waive the objections and to agree to take part in the presentation of the case before the board. In both the cases referred to the parties eventually withdrew their objections, undertook the presentation of their cases before the board, and a settlement was ultimately effected in each instance.

When a board is constituted, each party is commonly

represented before it by three persons, usually officials of the company in the case of the employers, and, on the other side, special delegates from a general committee of the employees. This special committee commonly consists of a general salaried officer of the union, not in the employment of any company, assisted by a couple of union officials who are in the employment of the company. Assisting and advising this special committee, there is commonly a larger committee representative of the general body of the employees. In the case of railway and telegraph companies, the general committee is selected from different districts throughout the operation of the system. The general officers of the company, on the other hand, are commonly assisted by minor officials who are in direct touch with the conditions under dispute. As a rule no restriction has been put upon the number allowed to be present on either side.

In the case of all the boards presided over by the writer, it was arranged that there should be no newspaper reports of the proceedings before the board. The objection to such reports has been that the very calling for a board implied that there were more or less radical differences of opinion and assertions of right, which the respective parties were about to lay down and defend, but which, in the course of the proceedings before the board, must be given up or at least greatly modified on one or both sides if a settlement were to be reached. In a court of law the arguments on either side are presented and maintained to the close of the case, the verdict is given by the court and accepted of necessity. There is no objection, therefore, to the publicity of the argument. But where, as before a board of conciliation, the verdict is to be reached by concession and compromise, and voluntarily accepted by both parties, it is not so readily

reached if there is a daily record in the press of every modification of the original claims, which were advanced with confidence and backed with vigor through all the fruitless conferences which have preceded the reference of the case to a board. Moreover, in the presence of the press there is a strong temptation to talk to the gallery rather than to the subject in hand, all of which is very inimical to that attitude and frame of mind*which is essential to the settlement of difficult and often bitter disputes, which only come to such a board when all other methods of settlement have failed. As to the interest of the public in the case: when a settlement is reached the chief public interest is served; and when it is not reached a definite and intelligent report of the whole case is presented to the public, which, from such a report, is better able to judge of the real merits of the respective cases than from the fragmentary and picturesque notes of the reporter, wherein the cutting blasts and high temperatures are fully recorded, but the calm weather largely ignored.

Though provision is made in the act for the issuing of subpoenas to compel the attendance of witnesses, and though this has been taken advantage of in some cases, yet our boards never found it necessary to resort to any legal machinery, either to secure witnesses or procure such documentary evidence as was essential to an understanding of the matters in dispute. Where the representatives of both parties to a dispute are in each other's presence, before the board, and familiar with the conditions under which the services rendered are performed, there is little dispute as to actual matters of fact; though there is naturally much difference of opinion as to the conclusions to be drawn from the facts, or the rights and obligations which are connected with them. Where also

no advantage is permitted through an appeal to technicalities, and where all parties are permitted to modify or change their views without prejudice, and where no conditions past or present having an essential bearing on the matters before the board are barred from consideration, there usually results a free and frank discussion of all phases of the points at issue. The result is that in a preliminary survey the majority of the matters in dispute are eliminated, either by the employer conceding the claims of the men or undertaking to remedy abuses, the real character of which is frequently learned for the first time; or by the employees withdrawing their claims on learning how exceptional or intangible they are, or how impossible it is to frame practical regulations covering them. A frequent demand was one for the introduction of some new general rule which, as it often turned out, was intended to cover only one or two special cases, which should have been dealt with by the grievance committee.

Thus, by a process of give and take and the recognition, frequently for the first time, of the real difficulties in each other's situation, very many of the matters in dispute may be disposed of in conference, leaving only those on which the opposing parties hold more or less radically inconsistent views, and the waiving or conceding of which would involve more or less far-reaching consequences. Once the essential differences between the parties have been definitely brought out, and the grounds on which the respective claims rest have been made plain, and once the minor points in dispute have been cleared off or disposed of, there is usually found to be little need for prolonging the discussion between the two parties before the board. Hence at this point, if a settlement has not been reached, the sessions of the board are usually

adjourned. It might seem that, having reached this stage, the board has nothing further to do but to sum up the facts and arguments, reach a decision, and frame an award, leaving to the parties the option of accepting or rejecting it. If both accept the award the dispute is at an end; if not, they are free to continue it or seek a settlement of their own, and in doing so to resort to a strike or lockout. Reports have been presented at this stage, some of which have been accepted and others rejected by one or both parties. Not in all cases, however, where awards have been rejected, have industrial struggles followed; though in the most important cases they have, notably in the recent strike of the mechanical trades of the Canadian Pacific Railway.

In our boards, however, the incident was never regarded as closed when we had submitted our proposals for a settlement and they were not accepted, as sometimes happened. The parties were seldom brought together again, but negotiations between them were conducted by the board with the chairman as a common medium, assisted, in dealing with the employers, by their representative on the board, and, in dealing with the employees, by their representative. Occasionally, however, the chairman conducted the final negotiations alone. The object of these negotiations was to find, on either side, the lines of least and also of most resistance, to overcome prejudice, to plead what seemed to the board or the chairman as the just cause of each side with the other, and gradually to break down or dissolve away the barriers between the parties until so little remained that it was not worth while to risk a great and uncertain struggle for so small an ultimate advantage, even if successful.

While it is true that in labor disputes there is much that is mainly due to mutual suspicion, personal preju-

dice, and perhaps honest misunderstanding of each other's motives and conditions, yet it is also true that there are very real and fundamental economic and social problems to be dealt with, in facing which one may thoroughly sympathize with both sides, and which are not therefore to be disposed of by any amount of good feeling or a clear understanding of each other's position. But, as these fundamental problems must be carefully and frankly dealt with if a settlement is to be reached, it is essential that they should not be complicated by misunderstanding and prejudice, or the arousing of those class and personal feelings which, however trivial and unreasonable in themselves, are, after all, chiefly responsible for the strike and the lockout. Yet, as in the end some settlement of the real problems must always take place, in the negotiations special emphasis was placed on the fact that the real question was not one as to agreement or non-agreement, but as to agreement with or without a strike, and it was urged that it were better to have reasonable concession without loss than concession to mere superior strength, which might or might not be on the side of justice, and where loss was certain to be multiplied manifold.

The character of the negotiations carried on between the close of the proceedings before the board and the final adoption of a settlement, depends upon a great variety of conditions, in which, of necessity, the personalities of the parties presenting the respective cases constitute no small factor, while the state of the labor market and the prospects of trade are naturally important considerations.

While, in certain respects, the board acted merely as a pathfinder, seeking the line of least resistance, yet it had also to lay down and strongly support by all reasonable

argument, backed by concrete demonstration, certain radical principles of practical justice which were not always very readily admitted on one side or the other. There were certain general principles for which the chairman of the board considered it necessary to steadily contend, irrespective of the nature of the dispute in question. The more important of these were the following: first, on behalf of the employees, the wisdom and necessity of recognizing the labor unions, in the sense that no employees should be discriminated against because they were members of labor unions or officers in them; second, on behalf of both employers and employees, the principle of the open shop, in the sense that no one should be forced to join a trades union as a condition of obtaining employment, and hence that all agreements reached, whether negotiated with trades union officials or not, were to apply as between the company and its employees, regardless of whether they were members of trades unions or not. In discussing the schedules of rules and regulations under which services were to be performed and the rights and privileges of employers and employees to be defined and safeguarded, the principle was always maintained that the employer was essentially entitled to manage his own business, while the employees should be free to manage theirs. The company must be as free to judge of its officers and their promotion as the employees to elect their union officials and judge of their services in their interests. This does not alter the fact that it is as unwise for a company to employ an officer who is unable to get on well with his men, be they union or non-union, as it is for a union to elect an officer who is continually making trouble with the employer. Nevertheless the appointment of the one and the election of the other are matters to be ultimately dealt with by the company, on the one hand and the employees, on the other.

The normal problems to be dealt with before boards of conciliation, and which furnish the real and practical bases for negotiation, are those concerned with rates of pay, hours of labor, over-time, conditions of promotion, and reasonable protection for life, limb, and general health. In covering these matters our boards usually discouraged the multiplying of rules and regulations, many of which often attempt to deal either with trivial matters or special cases. In the matter of promotion it was generally held that while seniority should prevail, where all other things were equal, yet it was not in the interest either of the men or of the company that seniority should be preferred to merit. Seniority as the chief factor in promotion is as inadmissible for the efficient conduct of a large and complex business or a public service as it would be in the selection of the chief officers for the administration of the affairs of a trades union. It is true that, inasmuch as promotion by seniority eliminates completely the personal judgment essential to promotion by merit, it enables the union officials to escape a great deal of difficult material for grievance committees. For, however evident it may be to an impartial judge that an individual is legitimately passed over in the matter of promotion, it is but rarely evident to the man himself, and his righteous indignation is apt to enlist the sympathy of his friends and breed trouble for the union officials, which is by no means offset by the self-complacency of the party promoted; for the ills of life are much more clamorous than its blessings. As the domestic troubles of the unions eventually affect their relations with the employers, practical wisdom should counsel a reasonable concession on the part of the employers to promotion by seniority.

In the matter of wages and conditions of employment

it was seldom found possible to accept, in practice, the principle that the same service should be everywhere paid for at the same rate, even as between competing companies in the same locality. There were historic, financial, and other factors, in the case of railways for instance, which rendered it expedient to recognize existing differences in rates of pay and conditions of employment, not only as between different railways, but as between different districts or sections of the same railway. Similarly, in coal mines, street railway systems, etc., uniformity of rates and conditions could not always be maintained. On the other hand, there was a tendency on the part of employers to withhold reasonable information as to the conditions under which different employees were engaged and promoted. As a rule this attitude appeared to be simply the result of historic conservatism and honest prejudice. But the very discontent and suspicion of the employees, owing to the withholding of such information, were frequently regarded as sufficient evidence of the wisdom of maintaining a secrecy which was of little or no advantage to the company, while the occasion of much irritation among the men. On these and similar points it was found necessary to take a stand on principle, and to patiently argue the matter out with one or other, sometimes with both of the parties to the dispute.

In practically all cases there were features in the dispute where the legitimate claims of both parties considerably overlapped. The profits of a company and the wages of its men might be alike below the rates of other competing companies. The geographic and climatic location of a railroad, the hardships and dangers of a water route, the geological peculiarities of a coal mine might render one much more disagreeable, hazardous, or costly to operate than another, while the profits of the company

were not seldom in inverse ratio to the difficulties of operation. And yet, for neither capital nor labor, and still less for the public, was the abandonment of the property a reasonable solution. Here, then, the perfectly reasonable claims of both parties might have to be denied, not on principle, but in practice, and a compromise sought which would be the least unreasonable or unfair for both. Yet, where each side was looking frankly to its own interest, it was the problem of the board to discover a basis of settlement which both parties could be persuaded to accept.

Sometimes when it appeared that all possible grounds for agreement or acceptable compromise had been exhausted, without bringing the parties within each other's range of concession, it was found advantageous to drop the negotiations for a few days and permit all parties, the board included, to ruminate on the matter in all its phases, and then to tackle the residuum once more when the mellowing influences of time and reflection had made concession look less like personal weakness and inconsistency, and permitted perhaps the restatement of the proposed settlement in a more acceptable form, or in one at least which had not the disadvantage of having been explicitly rejected.

As to the general attitude of the leaders of capital and labor towards each other, and towards a board of conciliation, one obtains a variety of impressions, the general outcome of which is a strong conviction that while one may recognize the operation of certain economic principles, yet the personal factor is a very powerful one, and the study of a particular case is more concerned with the manner in which economic principles affect the personal factor than the manner in which the personal factor affects economic principles. But while abstract economic

theories are of but slight application, the study of practical economics is of great value. As experience in this line widens, one is more and more convinced that the method of Adam Smith is very much more real and effective, and hence more truly scientific, than the method of Ricardo, and of some more modern theorists. After all, economics is more a concrete and descriptive science than an abstract or theoretic one.

Where the personal equation of leadership or organizing power is apparent on both sides of the table, though in quite different forms, one recognizes that it is not so much a question of expounding economic principles as of the diplomatic handling of human personalities, the elimination of misconceptions, the removing at once of sensitive suspicion, the memory of old struggles, and the unwillingness to exhibit the apparent weakness of receding from a stand once taken. In dealing with all these primary phases of the subject, however, the man who is equipped with a background of working economic principles, derived from a study of concrete economic conditions, historic and contemporary, has a very great advantage over those who have no similar training. For after all both sides in an industrial dispute, though often scornful enough of ordinary economic doctrine, are themselves the exponents of economic theories which not infrequently differ from those of the schools in being more narrow and more abstract, because generalized from a smaller or more highly specialized range of facts. Thus the value of an economic training in dealing with such matters is not so much that it enables one to make a direct appeal to economic principles in the settlement of disputes, as that it enables one to realize the one-sided or impracticable character of many of the generalizations made by people who have given little or no attention to economics.

As to the general effect of the Canadian law it may be said that the experience of the act throws much interesting light on the relative merits of compulsory and voluntary methods in the settlement of labor disputes. The combination in the Canadian act of the compulsory feature, in requiring the submission of the matters in dispute to a board of conciliation before a strike or lockout may take place, and the voluntary feature, in permitting either or both parties to accept or reject the award of the board, appears to promise the best method of effecting reasonable settlements and of promoting improved relations between capital and labor. Experience indicates that it is impossible, in a democratic community, to compel any considerable number of men to work under given terms of employment; nor, in spite of the hostages to the courts which the property of an employer furnishes, is it possible to compel him to employ any given number of men on certain prescribed terms. Freedom to accept or reject proffered terms of employment, and freedom to manage one's own business are essential to sound economic relations in a free community. Experience has proved also that the compulsory feature in the Canadian act is almost impossible of enforcement where either of the parties considers it advisable to refuse to submit its case to a board. Where such refusal has taken place, however, it has usually been on the supposition that the acceptance of the award of the board was essentially compulsory. Thus it is only the voluntary nature of the ultimate settlement which renders the compulsory submission of a case to a board at all workable. To refuse to submit one's case to a board, where the award is not binding, is a rather obvious confession that the case will not bear investigation, and is likely to invoke the adverse influence of public opinion.

In securing the submission of an industrial dispute to an impartial board, more than half the battle is won; for, in the proceedings before the board, both parties learn, as a rule, much more of the real merits of each other's case than is otherwise at all possible. Moreover, where there exists a constant fear of being committed to some objectionable decision by the evidence presented, in the case of compulsory arbitration, each party is particularly guarded in its own evidence, and particularly anxious to block or counteract the evidence presented on the other side. But where the evidence presented and the discussion before the board do not commit either side to more than they are ultimately willing to accept, and where they are not menaced by the selective whims of a press reporter, there is naturally much more freedom and latitude in the treatment of the case. Many phases of the subject are taken up, and vital relations of capital and labor discussed, in a manner which is frequently of the greatest possible educational value to both sides, and the good effects of which are by no means confined to the case in hand.

Considering how very seldom in their discussion of the merits of their respective cases the weaknesses of their own position and the strength of their opponents are frankly admitted, I have been agreeably surprised to find how readily in the end, even in the discussion before the board, but more particularly in the separate discussions afterwards, each side could be brought to concede the validity of their opponents' position on many points. Another encouraging feature, considering what interests are at stake, is the general calmness and good feeling which prevail in the discussions before the boards. Occasionally the temperature may exhibit a sudden rise when some tender spot is rubbed, but such occurrences are rare.

Much the liveliest case we experienced, in the way of an exchange of picturesque compliments, was one in which two very respectable international unions were seeking to establish themselves on the same base and on the same side of it with reference to a railway company.

There are many reflections suggested by the experience of the concrete cases which have been brought under the operation of the Canadian act, but only a few samples could be presented in this paper. The policy and method of the Canadian act by no means afford a certain remedy for industrial disputes. No practical man dreams that industrial disputes can be prevented from occurring, because there will always be cases where justice unavoidably pertains to both sides. There are, however, many disputes which are chiefly due to historic prejudice, mutual ignorance, and misunderstanding, and it ought to be possible to dispose of most of these, and to effect a working settlement in the case of many of the others. All that one may claim for the essential features of the Canadian act is that, if tactfully handled, they provide a reasonable method of securing the maximum of concession with the minimum of compulsion.

THE CANADIAN INDUSTRIAL DISPUTES ACT—DISCUSSION.

O. D. SKELTON: Professor Shortt's admirable paper leaves little to be said on the working of the act which he has done so much to make a success. I wish mainly to emphasize a few of the points suggested.

It is one of the chief merits of the Canadian measure that it aims merely to supplement collective bargaining, not to take its place. There is no desire, and so far no tendency, to make state regulation of the terms of industry, as in Australasia, the normal procedure. Collective bargaining is assumed as the regular and organic instrument of industrial peace; only when negotiations break down, and paralysis of one of the pivotal public utilities of the country is threatened, does the government step in and insist that a further attempt at settlement must be made, under the guidance of a board entrusted with the double function of making each side realize the other's position, and of informing and focusing public opinion on the dispute.

The conduct of the boards referred to by Professor Shortt is characterized by informality in procedure and by the endeavor to secure the assent of both parties to a basis of agreement before announcing decision. It is to be noted, however, that this course is not the invariable one. Several boards appointed under the act have assimilated their procedure to that of courts of law, and have contented themselves, court-wise, with delivering a judgment on the merits of the case, without further attempt

at securing agreement. The difference illustrates the all-importance of the personnel of the boards.

It is interesting, in view of yesterday's discussion, to note that in effecting a settlement no recourse seems to have been had to the marginal productivity theory of the schools or to any other single abstract principle. The condition of trade in general, the financial position of the company involved, the state of the labor market, the strength of the union organization, changes in the cost of living, are among the factors given weight. This means oftentimes compromise, but it does not, as is sometimes charged, involve splitting the difference: there is a world of distinction between compromising in view of real factors of strength on both sides and splitting the difference between artificial demands.

The framers of the act relied on the power of an informed public opinion to procure the acceptance of awards. Where the issues at stake were important enough to attract wide attention their trust has been justified. Even in such a case of seeming failure as the rejection by the Canadian Pacific Railway machinists of the board's award, followed by a strike of 8000 men, it was very largely the unwonted and almost unanimous support of public and press—the men complained that only three newspapers in all Canada gave them aid—which enabled the company to persist with a crippled service and to import strike breakers by hundreds from Great Britain and thus end the strike. Public opinion plays a further rôle, not at first assigned to it. The act provides penalties of fine and imprisonment for failure to submit a dispute to investigation before declaring a strike or lockout. It still remains to be proved, however, that these provisions, especially the imprisonment penalty, could be or should be enforced in the teeth of widespread and determined

resistance. The real sanction is the fear of public disfavor.

Labor organizations have been by no means unanimous in their attitude toward the act. The Trades and Labor Congress has twice approved the principle involved. The railway unions, more immediately concerned than many of the trades represented in the Congress, opposed the measure at its introduction, and still oppose it, though less irreconcilably. Among the out-and-out opponents of the act suggestions range from the complete abolition of its anti-strike provisions, as ably argued by Mr. David Campbell, of the Railway Telegraphers, to the somewhat paradoxical conclusion of Mr. J. H. McVety, of the International Machinists, that the act should be extended to cover all industries, acceptance of awards made compulsory, and boards elected by popular vote for a four-year term. More moderate critics, however, recognizing the improbability of such radical action, are directing their efforts toward securing the adoption of certain amendments, which will be laid before the Dominion government during the coming session of Parliament. It is impossible to forecast the exact scope of the demands to be made; among the specific suggestions recently made, however, there may be noted the following: the prohibition of the importation of strike breakers into the locality while the investigation is pending—a demand in harmony with the spirit of the act, and fair in view of the handicap the men are under through being deprived of their strongest weapon, the power of sudden action; extension of the Alien Labor law to include Great Britain—a demand likely to incur much opposition on political grounds; elimination of the provision that none but British subjects are eligible to act as members of boards—a provision which is a play to the gallery quite out of

keeping with the realities of international unionism; and an amendment permitting officials of a union to declare that a strike is likely to occur if the act is not invoked, without going to the trouble and expense at present imposed by the necessity of taking a vote of the members before making the declaration. At its Halifax convention in September the Trades and Labor Congress instructed its executive, in the event of the government refusing to grant the amendments desired, to submit a referendum on the advisability of repealing the act, to the trades affected, and pledged itself to abide by the result of the vote.

VICTOR S. CLARK: Professor Shortt reveals his experience in the field of arbitration by laying main stress in his paper on methods of administration rather than on the machinery of the Canadian act. For the main thing is the personnel of the boards and the way they interpret their duties—the success of the law depends upon the tact and fairness of the persons who operate it. Practically, the machinery in itself is a subordinate thing.

I do not think that public opinion alone will prevent strikes, though it may lessen their number and mitigate their evils. In New Zealand and Australia strikes are prohibited by law, investigated by public tribunals, and the merits of every dispute are brought fully before the bar of public opinion. That is, the sanction is public opinion backed by fines and imprisonment. But within two years there have been in New Zealand several important strikes in violation of the compulsory arbitration act; and serious strikes have occurred in Australia in defiance of similar laws. The recent tram strike in Auckland, the largest city of the former colony, was a strike about as big and inconvenient for the public as could have hap-

pened in connection with a private enterprise, and it was settled by a special commission outside the arbitration act. The tram strike in Sydney, at nearly the same time, took a similar course. In neither case did public opinion play any appreciable part in preventing an open rupture between employers and employees. Therefore I do not look forward with very sanguine expectation to seeing the Canadian law prevent strikes through public opinion alone. The great value of the act—and its value is great—lies in its providing a negotiating rather than an arbitrating body, and in thus preventing strikes by bringing the parties to a voluntary settlement, and not by holding over them any sort of a club in the shape of a penalty—moral or otherwise—for striking.

The stronger unions in Canada, directly affected by the law, are not favorable to its present provisions. This applies especially to the railway unions and the Western Federation of Miners. On the other hand, weaker unions regard the intervention of the government favorably. My impression is that the rank and file of the workers like the law better than do the leaders of the organizations. At least my personal interviews with the men pointed that way. If a locomotive engineer or fireman, met on a railway platform, knew anything definite of the act, he spoke of it at least without hostility, and often in a friendly attitude; but all the general officers of the engineers' and firemen's unions seemed clearly opposed to the law.

A chief argument against the Canadian procedure, on the part of well organized workingmen, is that it delays a settlement until the condition of the labor market has changed. The labor leaders say that, when free to strike on the moment, they can negotiate an agreement with their employers determining wages for some time to

come, on the crest of the market,—when the demand for labor is most active and wages are highest. But if they must delay in order to negotiate before striking, as the present law requires, their settlement is likely to be based on the state of the labor market at some date a month or two months later, when conditions are more favorable to employers. They ask pertinently enough whether, assuming labor to be in a market sense a commodity, the seller of any other commodity, like wheat or provisions or coal or pig iron, would care to submit to prices prepared for him some weeks after the time *he* thought most favorable for selling.

I intended to underline several paragraphs of Professor Shortt's paper, but Professor Skelton has anticipated my comments. The Canadian law has up to the present promised better than any other law to prevent strikes. It does not touch—as do the Australasian statutes—the equally important question of sweating. We shall see—in fact we already do see—the latter acts turning more and more to remedying the ill condition of underpaid women and children, wage boards being substituted for arbitration courts; but, because this is less spectacular than stopping great industrial conflicts, it is sometimes regarded as a minor function—when it truly is a major function—of Australasian legislation. Into this field the Canadian law does not pretend to enter, but in its own peculiar field it gives most promising results.

THE INFLUENCE OF INCOME ON STANDARDS OF LIFE.

R. C. CHAPIN.

It goes without saying that the standard of living attained does not depend simply upon income. The natural environment—climate, the free gifts of nature—the social environment, whether urban or rural, the efficiency of government, the opportunities for recreation and education which are provided gratuitously—all these have a marked influence upon the plane of life that men attain. Furthermore, the actual comfort enjoyed by a given family depends hardly less upon the amount of its income than upon the wisdom displayed in applying it to the diverse wants which it may be made to meet. The woman who “looketh well to the ways of her household” is as important a factor in our time as she was in the days of King Lemuel.

But into these wide aspects of the question it is not my business to enter. I shall deal with the influence upon the standard of living of income alone, and I purpose to consider the effect upon the standard, first, of variations in amount of income; second, of variations in sources of income. I shall draw for illustration largely upon the results of an investigation into the standard of living in New York City carried on in 1907 under the direction of a committee of the New York State Conference of Charities and of the Sage Foundation. Returns were compiled from 391 families of four, five, and six persons each, 318 having incomes between \$600 and \$1100.

I. *Variations in amount of income.*—It is plain that the larger the income, the larger are the possibilities of satisfaction. One of the evidences of a general rise of real wages in the nineteenth century is the increase in the number and kind of good things that are within reach of the ordinary man, and actually in his possession. We know, that is, that the rise of the standard of living so as to include trolley-rides and daily newspapers and silver-plated ware must be the result of a general increase in family income. But we can go farther than this. Ernst Engel has taught us to look at the apportionment of income among the principal objects of family expenditure, and to see just how changes of income work out in changes in the elements of the standard of living—what kinds of things are added as income increases, what are omitted as income falls.

On the basis of returns from 199 Belgian families, gathered in 1855 by Ducpetiaux, Engel made out his familiar table of percentage expenditures for Saxon families of three income-grades. He found that the poorest families, whose income was under \$300 of our money, gave for food 62 per cent of all that they spent. Families having from \$450 to \$600 spent 55 per cent for food, and those with from \$750 to \$1000 spent 50 per cent for this purpose. Hence he made his generalizations that, as income increased, a less and less part of it was needed for food, and that the percentage of expenditure for food was therefore an index of the degree of prosperity attained. He applied this standard in a later work to the wretched English peasants whose budgets had been collected by Eden in 1797, and found that the average of their food-expenditure was 73 per cent of their total expenditures. The generalization regarding the tendency of the food-percentage to diminish as the income increases

has been verified in many later compilations of family budgets. The *Report of the United States Bureau of Labor* for 1903, for instance, finds a decline in food-expenditure from 47 per cent among families having incomes between \$400 and \$500 to 40 per cent for families with incomes between \$900 and \$1000. Colonel Wright's Massachusetts investigation of 1875 showed a decline from 64 per cent for families having less than \$450 a year to 51 per cent for families having over \$1200 a year.

As the demands of the stomach are more easily met out of the larger income, what expenditures are increased to correspond? Engel's Saxon tables show a constant percentage for housing and for fuel and light, a slight increase for clothing, and a rise in the percentage allotted to expenditures outside of immediate physical necessities from 5 to 10 and from 10 to 15 per cent as we ascend the income-scale. This indicates that, along with somewhat better provision for food and shelter, it is possible for the family to indulge in more attractive clothing and household furnishings, and to spend something for amusement, for reading matter, and for minor personal indulgences.

All reports agree as to the broadening of the plane of living, with rising income, in regard to expenditure for the satisfaction of these culture wants. Not all, however, coincide with Engel's data in regard to a constant percentage for rent and for clothing. Colonel Wright's figures for the United States at large in 1901 show a nearly constant percentage for rent (17 to 18 per cent), but his Massachusetts report of 1875 shows a decline in the first three income-groups from 20 to 15.5 and then to 14 per cent, followed by a rise to 17 per cent and a drop to 15 per cent. Recent investigations in New York, that of Mrs. More in her *Workingmen's Budgets*, and that of the Committee of the New York Conference, agree in show-

ing a steady falling-off in percentage expenditure for rent with each increase of one hundred dollars in income. The percentages found in the latter inquiry were 24 for incomes between \$600 and \$700, and for successive income groups, rising by \$100 stages, 22, 20, 19, 18, 16—the last for incomes over \$1100. The congestion of population in New York, fortunately exceptional, doubtless accounts in part for the fact that in that city house rent claims one-quarter of the \$600 incomes.

An examination of the percentages expended for food, housing, and other purposes suggests that the proportion of income devoted to each of them may not always move in the same direction as we pass from one income-group to the next higher. The \$400 families in the *Labor Report of 1903* spend a higher percentage for food than the \$300 families. If the comparison is carried far enough upward in the scale of incomes, a point is reached in New York where rent ceases to fall off in percentage expenditure, and clothing ceases to demand a larger proportion than in the group preceding. The fact seems to be that each of the three primary wants takes its turn in urging its claims most vociferously, and when these have been pacified, the desires for the things that make life worth living begin to be heard. In regard to each class of wants in turn a point of relative saturation is reached, and a more adequate satisfaction of the next one becomes possible.

In New York City the most imperative need on the lowest incomes is for housing. Some place of shelter must be provided, and, however wretched, it will not be cheap. Thirteen dollars a month was the average rent paid by seventy-two families whose average income was \$650. But this amounts to \$156 a year, or 24 per cent of the total income. When the cost of shelter demands a quarter of the whole income, food and clothing must

take what is left. But the accommodations obtained as the minimum that can be lived in by the families with \$650 a year are practically good enough for those with an income one and two hundred dollars greater. Seventy-three families whose income averaged \$846, spent only fourteen dollars a week on the average for rent. But this was only 21 per cent of their larger total expenditure. Meanwhile their food percentage was practically as high as that of the \$650 group (44.3 per cent), representing an increase in average amount expended from \$290 to \$360.

In food the point of diminishing percentage was not reached until after the \$1000 line was passed. The food-percentage increased, as with the families in the *United States Labor Report* of 1903, on passing from \$400 to \$500, and from \$500 to \$600. This may be due in part to exaggeration in the returns of expenditure for food. In part it was due to the fact that until an increase of \$800 was reached one-third of the families were underfed. The proportion of the total food-expenditure that was given for animal food increased, and that expended for cereal food diminished. The cost of animal food comprised 29 per cent of the total food bill of the families in the \$600 income-group, and 32 per cent of those in the \$1000 group. Cereals dropped correspondingly from 21 to 17 per cent. The expenditure for alcoholic drinks increased, taking into account only those families that reported this item, from the average of \$27.25, or 4.2 per cent of the total expenditures in the \$600 group, to \$59.96, or 5.2 per cent, in the \$1100 group.

Clothing comes last of the three to a constant or a diminishing proportion of the expenditures. In the New York families under consideration the percentage expenditure rises slightly with each increase of \$100 in income

until the \$1100 group is reached, and thereafter remains constant at about 15 per cent.

The expenditures for other purposes than these three primary necessities are kept under until these wants are met. By the time something like an equilibrium among these three has been reached, say at \$800 for our New York families, the expenditure for recreation, social obligations, care of the health, and all other purposes save fuel and light, claims a larger proportion of the income. The proportion is 1 per cent higher at \$700 than at \$600, but at \$800 it rises from 14 to 16 per cent of the total expenditure, and continues to increase without sign of stopping. That is, the culture-wants are beginning to claim their own, which, under the necessity of keeping the wolf from the door, they could not be permitted to have.

A striking example of this tendency of subsistence-wants to claim the lion's share of all increasing income is found in Engel's comparison of the Belgian returns of 1853 with those of a similar investigation made in 1891. At the latter period, although the average income had nearly doubled, the expenditure for food comprised 65.7 per cent of the total in 1891 as compared with 64.9 per cent in 1853. In fact, food, clothing, rent, and fuel and light consumed 96 per cent of the income in 1891 and only 94 per cent in 1853.

The same general conclusion as to the relative insistence of the several classes of wants may be drawn from another method of handling the New York returns. A minimum standard, as exact as could be determined, was applied to the expenditures for food, clothing, and housing, and the number of families counted in each income-group who came short of the standard. For food, the minimum was set at an expenditure at the rate of 22 cents

per man per day, as calculated after the manner made familiar by Professor W. O. Atwater in the Bulletins of the Department of Agriculture. This figure was reached, after an analysis of one hundred of the family reports, by Dr. Frank P. Underhill, of Yale University, a competent expert. Professor Atwater's estimate on the basis of data gathered in New York City a few years previous, when a lower scale of prices prevailed, was from 23 to 25 cents. For housing the minimum was fixed at one and one-half persons per room, that is, not more than six persons to four rooms. For clothing the minimum was set at an allowance of \$100 for the assumed family of five persons, expenditures for washing being included in this sum.

For our present purpose the accuracy of these estimates of a minimum requirement for physical efficiency does not concern us, but only the variations in the departures from them that appear in the several income-groups. Measured by these standards, of the families with incomes between \$400 and \$500 all are underfed, 88 per cent are underclad, 63 per cent are overcrowded. That is, the want of shelter is being satisfied at the expense of food and clothing. In the next income-group (\$500-\$600), the underfed are 65 per cent, the underclad, as before, 88 per cent, the overcrowded 71 per cent. In paying more attention to the need for food, less attention is paid to shelter. A higher rental is paid, but more persons are crowded into the accommodations offered. In the next income-group (\$600-\$700) the underfed have fallen to 33 per cent, the underclad to 63 per cent, the overcrowded to 57 per cent. For every income-group thereafter, the overcrowded families preponderate over both the other classes. Even in the \$1100 income-group 21 per cent are overcrowded, but none underfed, and

only 6 per cent underclad. These figures, taken as a whole, imply that the most urgent need at the minimum income is for shelter, out-clamoring not hunger perhaps, but at least the want of adequate food. With a larger income a pause can be set to the desire for better housing, while more attention is given to the providing of food. With an income still larger, of \$900 and above, the deficiencies in diet are supplied, and at \$1000 the minimum allowance for clothing has been attained by practically all the families. Not even at this point, however, does the desire for adequate housing, at the price which must be paid for it, suffice to persuade more than three-fourths of the families to go without enough of other things to secure it.

Another alternative to expansion of expenditures, for whatever purpose, as income increases, is saving. Saving becomes easier, as income increases. But the point where savings begin is not necessarily the point where a standard even of physical efficiency is attained. There are families that save at the expense not only of comfort, but even of health, and there are families that no increase of income would induce to save. Of the underfed families just alluded to, one-half reported a surplus of income over expenditure of at least \$25; 65 per cent of the families reckoned as underclothed, and 44 per cent of the overcrowded likewise reported such a surplus. When this is compared with the percentage of all families that reported a surplus, namely 36.5, it seems fair to infer that the desire to save represses expenditures to meet actual physical necessities.

On the other hand, by no means all families on a larger income preferred saving to spending. Not until \$1300 is reached is there a constant increase in the number of families that report a surplus of income over expendi-

tures. This indicates that there are Micawbers on large incomes as there are misers on small incomes, but also that the social influences of New York City, at least, encourage adding to the good things included in standards of living quite as much as they encourage saving. The proportion of savers among the Russian and Italian families was found to be much higher than among families of more thoroughly Americanized stock.

On the whole the conclusions drawn from the New York investigation substantiate the restatement of Engel's "laws" given by Stephan Bauer in his article "Konsumtionsbudget" in Conrad's *Handwörterbuch*, as follows:

With increase of income:

1. The proportion spent for food, especially for vegetable food, falls.
2. The proportion saved constantly increases.
3. The proportion spent for housing, fuel, light, falls until a certain income is reached, then remains constant or increases.
4. The proportion spent for animal food, drink, clothing, culture, and recreation rises until a certain income is reached, then remains constant or falls.

II. *Source of Income.*—The real standard of life enjoyed by a family is profoundly influenced by the sources from which its income is derived. To explain, let me make a classification, on the basis primarily of amount of income, of the relation of income to family life. Let us consider five classes:

1. The income is so small that the family cannot be maintained, but is broken up. Our charitable societies are only too familiar with cases of this kind. The father is incapacitated by accident or disease, or the supplementary earnings of other members of the family are cut off—from whatever cause, the income is diminished to a point where it is so far below the needs of the case that unless

liberal relief is given the family must be broken up and the children provided for outside of the home.

2. The income is inadequate to the maintenance of a normal standard, but the family is kept together, living on a plane below the requirements for the working efficiency of the parents and the healthful bringing up of the children. It is possible to maintain life for a long time on a diet of bread and tea. Human beings can exist although sleeping three or four in a room. Dr. Foreman's budgets of the Washington poor contained instances of regular underfeeding for one week in each month—the week in which the monthly rent had to be paid. The figures already cited regarding underfed and overcrowded families, even on incomes of \$700 and \$800, are evidence that cases of this class are only too frequent. The outcome in the long run is the early extinction of the family under the attacks of disease, or race deterioration, as in the case of the London "hooligan".

3. The income adequate in amount, but adequate because the wages of the father are supplemented by the earnings of his wife and children. Such a family may maintain a normal standard, provided the children are fairly of working age and are not overworked. But where the mother's employment takes her away from the home and where the children are set to work too young, the real standard of living is lowered. The family income cannot be as wisely expended when the mother is away all day, and the addition of outside employment to the woman's domestic work makes a burden that often impairs her health. The earlier a child goes regularly to work, the more is cut off from his rightful inheritance of opportunity to improve upon his father's standard of living.

4. The income adequate in amount, but made adequate

by taking in lodgers or boarders. This case is similar to the preceding, and the effect upon the solidarity of the family, economic considerations aside, is hardly less deplorable. The taking of lodgers not only introduces outsiders into the midst of the family, but it frequently means an impairment of a normal standard in the matter of housing. Recent investigations have brought out the facts regarding the crowding of many tenements with lodgers. The relative frequency of the practice is perhaps indicated by the fact that one-half of the families included in the investigation of the New York Conference Committee were taking lodgers. The proportion increased with the increase in amount paid for rent—23 per cent of families paying from \$10 to \$14 a month for rent took lodgers, but they were taken by 62 per cent of the families paying over \$16 a month. The results in overcrowding are shown in the fact that 70 per cent of the families having lodgers were reported as below our arbitrary standard of housing accommodations.

5. Families with adequate income, derived from sources such that the well-being of the family is not impaired. These families are the only ones that can be said to have reached a decent standard of living. They are the only ones in which the children have a "white man's chance" for the future. They are, for the most part, families supported by the father alone, or by children who are far enough along to handle their own wages and pay their own board into the family treasury. The number of families where the father really supports the family is not so large, among the wage-earners of our American cities, as is popularly supposed. Especially in those occupations where men's wages are not over two dollars a day they are the exception, not the rule. Forty-eight of the laborers, teamsters, and garment workers included in the

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New York Committee's report, gave in a family income of from \$800 to \$1000; but in thirty-eight cases the father's earnings were supplemented from other sources. In almost every compilation of workingmen's budgets that has been published in this country has appeared the same frequency of composite incomes among families reporting the higher amounts for total income. Further, among the families with composite income the proportion of underfed and of families reporting deficit is greater than among the whole number of families. This means, of course, that the family of a man with a \$600 wage can maintain a standard that calls for an expenditure of \$800 only by endangering the integrity of the family life by taking lodgers or sending mother and children out to work. In other words, the standard of wages does not reach the standard of living.

The influence of income on standard of living, therefore, may be traced in reference both to amount and sources of income. As the amount of income increases expenditures increase most rapidly along the line of the strongest desire, unsatisfied hitherto. This desire is likely to be the desire for better food, then for better clothing and shelter, until what may be called a saturation point for these essentials has been reached. As this point is approached, expenditures for things not connected with immediate material subsistence claim a larger share of the income, and finally increase most rapidly of all. At what point the desire for material subsistence is offset by the desires for cultural goods, or by the desire to save, cannot be determined exactly. A minimum point is fixed by the environment, natural and social. The education of the particular family, the custom of its social equals, are the forces that determine at what point above the subsistence minimum the income will be diverted from physical satisfaction to the meeting of higher wants.

The maintenance of a decent standard depends on the father's earning, in ordinary cases, enough to meet the wants of the family until the children are really fit to go to work. When the father's earnings have to be supplemented by the earnings of others, or by taking lodgers, the standard of life is lowered and the integrity of the family is imperiled.

THE FAMILY IN A TYPICAL MILL TOWN.

MARGARET F. BYINGTON.

The effect of our industrial system on family life is in most cities rendered indefinite by the presence of complicating factors. In a small community, however, which is dependent on a single industry, the factors of the problem are simplified, and therefore the relation is clearer and the conclusions are more obvious.

For this reason I venture to offer a very simple and concrete description of the type of family and the conditions of family life in a steel-mill town, believing that it may serve at least as an illustration for this afternoon's discussion. The facts offered are the result of a six months' investigation as to the cost of living in Homestead, and are, I believe, true in the main of the steel towns of the Pittsburgh district.

When in 1881 Klomans started to build a small steel mill, he located it in a village seven miles from Pittsburgh, appropriately enough called Homestead. The industrial development of the city had seemed too remote to affect it. But the mill became a part of the United States Steel Corporation and is now the largest steel plant in the world, while the village, which has grown with it, now has a population of about 25,000. Not only did the initial impulse of the town's growth come from the mill, but throughout, the industry has, for two reasons, definitely determined Homestead's development; one, that as there is no other considerable industry in the town the men are dependent for occupation on the mill; the other, that since the strike of 1892, when the power of the Amalga-

mated Association came to an end, the corporation has, by its decisions as to wages and hours of labor, determined, practically without hindrance, the conditions under which the men live. Because of these two factors we may consider that the social and economic institutions of Homestead are typical of those which a powerful, organized industry is likely to develop: a statement limited by the fact that conditions would be very different in a community where the prevailing industry was of another type.

The conditions to be discussed are simplified by a marked homogeneity of type in the families of Homestead, in itself a result of the industrial situation. Marked distinctions of wealth are totally absent. Two groups do indeed exist with different standards and no common interests,—the Slavs, and the English-speaking workers,—but this distinction is of race rather than of wealth. The Slavs are usually day laborers, while the majority of the English-speaking men are skilled or semi-skilled; but in spite of these differences both groups are wage earners. Even the number of professional men is not as large as in a town farther from the city, while the owners of the mill—the stockholders—scattered throughout the country, knowing their property only as a source of dividends, have no part or interest in the town's development. As a result, this town of workingmen has not the lack of mutual understanding resulting from great differences in wealth and standards, but neither has it the stimulus which comes from the presence and leadership of men of education and leisure. What the town offers is what the working people have created for themselves under the conditions imposed by the industry.

From the standpoint of family development, probably the most significant fact about the town is that it offers

work for men only. Aside from the steel mill and one machine shop, the only work in the town is in providing for the needs of the workers, with but chance work for women. As Pittsburgh is a forty-five minutes' car ride distant, the work it offers is not easily available. The wage in the mill, moreover, though by no means abundant, is fair and steady. The laborer earns at a minimum rate of 16½ cents an hour, \$1.65 a day, while the semi-skilled or skilled workers earn from \$2 to \$4, and occasionally as high as \$5 or \$6 a day.

The work is, in addition, regular. From the panic of 1893 to that of 1907 I am told that the mill was not shut down for a single day. The day men, therefore, who are paid their full wage unless the mill actually closes, have a steady income the year round, except in periods of industrial depression. The tonnage men, who are paid according to output, do feel even a temporary cutting down of orders, but, as they are the ones who ordinarily receive the highest pay, the occasional lessening of their wage is not so disastrous.

As a result of these factors, the town in general seems to have adopted the position that the women should stay at home, and by good housekeeping make the money go a long way, rather than go out to work and earn a little more. This is shown concretely in the incomes of those families whose budgets were secured for the investigation. Among the English-speaking people the husbands and sons contributed practically the entire income, 92.8 per cent among the native whites and 94.6 per cent among the English speaking Europeans. There was no income from the work of women unless one would so consider what was received from lodgers. This constituted 4.6 per cent of the total income in the European group and 2.7 per cent among the native white.

We find, then, that as a result of the kind of work offered the town consists of a group of workingmen's families in which the man is the breadwinner. The effect of the industrial situation is further shown in the work of the children. The girls show little more tendency than their mothers to become wage earners. In the thirty-eight English-speaking families there were fifteen girls over fourteen, not one of whom was at work. Four were in the high school, the remainder at home helping with the housework. While this is probably an extreme figure, as some girls in Homestead do go to work in stores or offices, it reveals a general feeling in the town that "The home is woman's sphere." While one may question whether from the standpoint of the present the additional income from the girl's wages would not add more to the comfort of the family than her help in the household, from my acquaintance with housekeepers of all sorts I am convinced that good home training is invaluable in preparing girls for their own homes later. The four champion housekeepers of my acquaintance were the daughters of Pennsylvania farmers. One of them, when I expressed my surprise at how much more she had accomplished than others with the same income, gave as the reason for her success that girls who had been in stores or factories had no training in management and were quite helpless when they faced a housekeeper's problems.

The situation, as far as the sons is concerned, is somewhat different. Fifteen of the seventeen boys over fourteen were at work contributing, among the whites 9.6 per cent, and among the English-speaking Europeans 18 per cent of the total income. Though the other two boys were still in the high school, we find on the whole a marked absence of interest in academic or even in technical training for these sons. As the daughters, instead

of learning trades, are at home becoming practical housekeepers under their mothers' direction, so the sons, following in their fathers' footsteps, are entering directly into the practical work of the mill to get there the training for future success. That the best paid men in the mill, such as rollers and heaters, have secured their jobs through experience in the mill rather than through outside training, has doubtless much to do with this attitude. Through the influence of the fathers, the boys sometimes go into the mechanical department, or get what are known as pencil jobs, where the work is light and apparently more gentlemanly, but where the pay is seldom so high. Usually, however, they begin in the regular boy's work, as messenger boys in the yards, or door openers. Though this gives no special training for the future, as the line of promotion is not usually open, a boy has a good chance of becoming at least a semi-skilled workman on fair pay. Promotion is sometimes unduly rapid, however, so that boys of sixteen or eighteen are earning men's wages, with little chance of further promotion. One woman, who regretted that her son had not learned a trade, said that he was unwilling to go through a long apprenticeship when in the mill he could earn good pay at once. In spite of the fact that because of long hours and the danger from accident women often wish their sons to take some other work, they usually do go into the mill. This means that, as for some years they stay at home and contribute their share to the family income, they create a period of economic prosperity. The family is at this time often able to make extra provision for the future, as, for instance, buying a house.

We find, then, that the industry has by its very nature helped to create a normal type of family life. But in those factors where it has a choice open to it, such as wages

and hours, has it by its decisions made possible for these families a genuine home life, a carrying out of their ideals for themselves? For two facts must be considered in any study of standards of living,—one the limitations or opportunities from without, which the family cannot affect, the other those family ideals, sometimes limited in themselves, sometimes hampered by outside forces, which are continually struggling toward realization. How far are Homestead's ideals realizable on the pay the mill offers?

It is impossible in the limits of this discussion to consider at all in detail the results of the budget investigation in Homestead. Figures are too complicated without elaborate explanations. A few facts, however, may be used in this general discussion.

To my mind the fundamental fact brought out by the investigation was that the question of expenditure is always one of choices, of doing without some things in order to get others. This may seem axiomatic, but when applied to a wage of less than \$12 a week it expresses pretty much the whole problem of life. Do we find that in order to carry out ideals of home life, such as having an attractive house, making due provision for the future, or buying a house, certain absolute essentials must be gone without? Any study of the budgets of families receiving less than \$12 a week, or even those earning from \$12 to \$15, demonstrates very clearly that this is the case. As the unskilled men who earn \$10 and \$12 a week compose 58 per cent of the employees, it is worth while to consider briefly the problem which this large percentage of Homestead's population is facing.

To indicate its extent I will give the average expenses of forty families with an income of less than \$12 a week. Of a total expenditure of \$530 a year, \$241 goes for food, \$103 for rent, \$50 for clothing, \$18 for furniture, \$25

for fuel, \$11 for medical care, and \$13 for tobacco and liquor. In addition, an average of \$38 was spent annually for insurance, leaving but \$31 a year for amusements of all sorts, church expenses, savings, and the necessary sundries. Now, obviously no one of these items is adequate, to say nothing of being superabundant. Rent, for example, at \$2 a week provides only a two-room tenement, and that without water or toilet in the house. Food at \$4.64 a week would mean for a family of five only twenty cents a day, two cents a day less than Professor Chittenden estimates as absolutely essential in New York. Fifty dollars for clothing is just one-half the sum Mr. Chapin gives as necessary. The tobacco and liquor item, which is especially large among the Slavs, could of course be cut with profit, but in no other way can that pitifully small sum of \$31 be increased. Yet from that sum savings must come if there are to be any.

The different nationalities meet this problem in varying ways, according to their ideals. Among the native white families a comfortable house is an essential proof of respectability. Consequently, we find that they spend for rent 21.2 per cent, as against 16.4 per cent among the Slavs. On the other hand, the Slav spends 54.3 per cent for food, while the native white spend but 44.7 per cent. That is, the Slavic family will have enough food anyway, while the American demands a big enough house. Inadequate food or bad housing alike endanger physical efficiency, while with overcrowding any semblance of home life becomes impossible. In neither group is there any margin for amusements.

It is not a question of good management. The cleverest housekeeper I know was doing marvelously on \$14 a week, and the following statement of her average expenditure for eight weeks shows how she did it: Food,

\$7.05; clothing \$0.57; household expenses, \$0.59; rent, \$2.50; insurance and lodge dues, \$0.65; church and charity, \$0.09; recreation and spending money, \$0.03; doctor \$1.46; sundries \$0.35. Though, as you may see, she was keeping the unessential elements of expenditure at their lowest point, her food supply was still quite inadequate. I found by a rough estimate that it was deficient about 20 per cent in both proteids and calories. The budget revealed a wise choice of foods aside from a possibly extravagant expenditure for fresh fruit and vegetables. If a skillful woman of Pennsylvania Dutch stock cannot manage on this wage, what can be expected of the average housekeeper?

The necessity of facing these problems three times a day has its effect also on the overtaxed mother. One woman, who on an income of from \$2 to \$3 a day was providing for five children, had bought a small farm and was carrying heavy insurance. In order to accomplish this, she told me, she must not spend even five cents for a visit to the nickleodeon. When she described to me her hunts for bargains and her long hours of sewing to make her girls presentable, I did not wonder that she had the reputation of being a cranky person.

These two women were Americans, but by far the largest majority of the laborers are Slavs, and it is among them that we find the worst results of the low wage.

The mill has sent out a call for young vigorous men who will do its heavy work for a small wage. In answer to this has come a great number of Slavic immigrants. As is often true of a new group, most of these men are either single or with families in the old country. Of the 3602 Slavs in the mill, 1099, or 30.5 per cent, were single men. This has had a disastrous effect on the family life

of the Slavs, for these men usually board in families of their own nationality who live in the wretched courts in the second ward of Homestead. A study made of twenty-one of these courts revealed appalling conditions. Among the 239 families living there, the 102 who took lodgers had on an average four persons to a room. Fifty-one of these families—more than one-fifth—lived in one room. The two-room tenements were not infrequently occupied by a man, his wife, two children, and two or three boarders. Under these conditions any genuine family life becomes impossible.

The death rate among the children is high, twice as high as in the other wards of Homestead. Moreover, training children under these conditions is difficult, and a terrible knowledge of evil results from the close mingling of the children with this group of careless, drinking men.

Aside from the presence of these single men and a growth of population with which the number of houses has not kept pace, the overcrowding is due to the dominant ambition of the Slav to own a bit of property here or in the old country, or to have a bank account. As we have seen, strenuous economies are necessary if their desires are to be attained. That it is ambition rather than a permanently low standard which is responsible for the bad conditions is shown by the comfort and even good taste displayed by some who have succeeded in buying their own homes.

These people do need, however, to have impressed upon their minds the value of education. There is no effective school enumeration, the responsibility is divided between the public and parochial schools, and it is easy enough, where the parents are indifferent, for the children to drift away from regular attendance. As the steel

mill with its heavy work and enormous machinery cannot utilize the work of children, there is almost no child labor problem in Homestead; but usually as soon as the children are fourteen they start in to work.

Between ignorance and ambition these newcomers are failing to secure for themselves or their children a real home life that will result either in the physical or moral efficiency of the next generation. The mill, which demands strong, cheap labor, concerns itself but little whether that labor is provided with living conditions that will maintain its efficiency or secure the efficiency of the next generation. The housing situation is in the hands of men actuated only by a desire for the largest possible profit. The more intelligent members of the community, on the other hand, though realizing the situation, do not take their responsibility for the aliens in their midst with sufficient seriousness to limit the power of these landlords. The Slavs, moreover, people used to the limitations of country life, are ignorant of the evil physical and moral effect of transferring the small rooms, the overcrowding, the insufficient sanitary provisions which may be endurable in country life with all outdoors about them, to these crowded courts under the shadow of the mill.

Summing up the results of indifference on one side and ignorance on the other, we find a high infant death rate, a knowledge of evil among little children, intolerable sanitary conditions, a low standard of living, a failure of the community to assimilate this new race in its midst.

As we waited in one of the little railroad stations in Homestead, a Slovak came in and sat down next to a woman and her two-year-old child. He began making shy advances to the baby, and coaxing her in a voice of heart-breaking loneliness. But she would not come to

him, and finally the two left the room. As they went he turned to the rest of the company, and in a tone of sadness, taking us all into his confidence said simply, "Me wife, me babe Hungar." But were they here it would mean death for one baby in three; it would mean hard work in a dirty, unsanitary house for the wife; it would mean sickness and much evil. With them away, it means for him isolation and loneliness and the abnormal life of the crowded lodging house.

While this low wage, either among Slavs or Americans, is insufficient to maintain a standard of physical efficiency, the industry adds further that element of uncertainty for the future so destructive to ambitions and plans. Accidents are frequent. Even though they are not often fatal, one that lays a man up even for two weeks has a disastrous effect on a slender surplus. One family had saved \$300 to buy a house, but when the man was injured by a weight falling on his feet, and was laid up for six weeks, \$80 went from the surplus. Soon after, last winter's hard times came, and practically all the savings had to go for food. Now the wife wonders whether, with all these possibilities of disaster, she will ever dare to put all her savings into a house.

In addition, cuts in wages are made periodically. As these most frequently affect the better paid men, even they cannot start out on any plan involving a number of years without realizing that before the end of the time conditions may have changed so as to make its carrying out impossible.

By the twelve-hour shift as well as by the low wage the mill is affecting the lives of these families. Though the long hours and hard work may seem to be hardships that only the man would feel, they do react on family life. Not only do his weariness and his irregular hours make

him less inclined to enter into the family pleasures, but he also fails to change—through political or other action—the conditions under which they live. Because of this weariness-induced apathy, a man usually stays at home and smokes his pipe instead of troubling himself with outside affairs. This tendency is doubtless intensified by conditions within the industry. As since the strike of 1892 there have been no labor organizations in the town, the men do not meet to discuss the conditions under which they work, and accept passively whatever is offered. This same indifference seems to affect their attitude toward politics, so that instead of taking an active part they allow the wholesale liquor interests to dominate. Yet, through schools and through sanitation, the political situation does bear a close relation to family problems. In Homestead, for instance, the drinking water comes, only partly filtered, from a river which has already received the sewage of a number of towns and cities. The man continues to go three times a day for water from a neighbor's well, and pay him fifty cents a month for the privilege, instead of insisting that the borough provide a decent supply. There are no ordinances requiring landlords to put water or toilets in the houses, though the family are longing for the day when they can move to a house with these conveniences. An industrial situation which creates an attitude so passive that men accept without protest perfectly remediable evils that immediately affect the family is a serious one.

These long hours have a further harm in their tendency to lessen the demand for amusement. Aside from roller skating rinks and the five-cent variety shows known as nickleodeons, there is, outside of the home, no real chance for amusement save the ever-present light and refreshment offered by the fifty or more saloons which

Homestead licenses. The mothers, who realize that the rinks are a source of danger to the girls, and the saloons a menace to family happiness, make a heroic and often pathetic effort to keep the home attractive enough to offset these temptations. While the results are perhaps not undesirable when the mother succeeds, every woman is not a genius, and when she fails there is little wholesome amusement to compensate for her failure. The people do not want this provided for them by philanthropy. When speaking of the Carnegie library, men often said to me, "We didn't want him to build a library for us; we should rather have had higher wages and spent the money for ourselves." Aside from the money, —and the margin for amusements as we have seen is painfully small,—they need the leisure to plan and enjoy. The town offers to its inhabitants the chance to work, but it gives them little chance to play. And yet play is essential if even physical efficiency is to be maintained.

To sum up the situation, then, we find that the mill by the nature of the work offered helps to develop a normal family type, but because of low wages, long hours, and opposition to industrial organization, it has done much to hamper the family in carrying out its ideals.

May I, in conclusion, state briefly what facts as to the relation of family to industrial life were clarified in my own mind by this investigation? In the first place, in a town dominated by one industry the type of family is largely determined by the nature of that industry. Theoretical discussions as to the normal family have little effect, even the ideals of individual families must often be modified to meet this situation. In a cotton-mill town, for example, we are almost sure to find the women at work, while in a steel town it is the man's place to earn and the woman's to spend. This relation, obscured in commercial or large manufacturing centers, stands out

clearly in Homestead with its one industry. In the second place, the industry limits the development of the family life by the effect of long hours and overwork, and the absence of the stimulus which trades unions might supply. These react on the family, not only in the man's personal attitude toward them, but through his failure by political or other united action to improve the conditions under which they live.

The most obvious and fundamental relation of industry and family is the economic one. Without the background of a sufficient wage, even such a distinctly domestic virtue as thrift becomes not only impossible but harmful. If to buy a house means to underfeed the children, if to have a bank account means to take lodgers till there is no possibility of home life, we are certainly foolish to laud the man who realizes these ambitions, and class as extravagant and thriftless those who do not. Our preaching must have a closer relation to the economic situation of the families.

In years gone by the family was the industrial unit, the work was done in the house, was close to the problem of the home, and the two developed together. The family ties were strong and the industrial conditions strengthened them. Now the situation is changed, and the industry is dominant. More and more the very nature of the family, its ideals, and its everyday existence are alike moulded by the opportunities for work. If we are to keep any abstract ideals of what family life should be, and are to translate these into actualities, our primary query must be whether our industrial system makes them possible. Without the development of the personal virtues economic prosperity might be futile, but the converse is also true. In Homestead at least, I believe, there are more ideals than the industrial situation allows to become realities.

RESULTS OF THE PITTSBURGH SURVEY.

EDWARD T. DEVINE.

The Pittsburgh Survey represents one way of studying family life in an industrial and urban community. The method of personal observation by an individual investigator is obviously inadequate to such an undertaking. Life is too short, prejudices too ineradicable, individual qualifications too specialized, the personal equation too disturbing, to permit any single individual, however gifted, to see for himself the community as a whole, and to measure the influences and forces that shape the family destiny. The writer who boasts that he has known many cities, if by that he means that he has known them intimately by the method of first-hand observation, invites distrust. The Chicago stockyards district alone, or the lower East Side of New York, or the Pittsburgh steel district, affords a problem too complex and difficult for any single-handed observer and reporter of social conditions. Individual inquiry and personal interpretation have brought us a certain distance, but they cannot take us much further. Their limitations have suggested the plan which we have tried in the experiment the results of which you have asked us to lay before you. That plan is, in a word, to organize a staff to survey the community as a whole, a group working under common direction, and rapidly enough so that the results refer to a particular period and to relatively definite conditions which can be clearly described.

Whether in this first experiment we have succeeded, is of course still to be determined, but this was the under-

lying idea of the Pittsburgh Survey. In attempting thus to reckon at once with the many factors of the life of a great industrial community, we may not have been able to go so deeply into most of them as, for example, special inquiries have gone into tuberculosis, child labor, housing, or the standard of living; although on the other hand we may have gone into others, such as the cost of typhoid, the effect of industrial accidents, the status of the steel workers, the boarding-boss system, and the place of women in modern industries, more deeply than has heretofore been attempted. In any case our main purpose has been to offer a structural exhibit of the community as a whole and not to make an exhaustive investigation of any one of its aspects. We have not dealt with the political mechanism, and we have not to any great extent dealt with vice, intemperance, or the institutions by which the community undertakes to control them. We have dealt in the main with the wage-earning population, first in its industrial relations, and second in its social relations to the community as a whole.

There are certain immediate, tangible results in Pittsburgh. An Associated Charities, an increased force of sanitary inspectors, a comprehensive housing census, a typhoid commission, and a permanent civic improvement commission are certainly very tangible and striking results, especially as they are in the nature of by-products to an investigation concerning which very little has as yet been published.

These development, however, interesting and gratifying as they are from the point of view of social progress in the community, are probably not the results of the survey which are in your minds, as you forecast this discussion. I take it that what is of interest to the Economic Association and the Sociological Society is

rather the answer to the question: Have you really found out anything about Pittsburgh that we did not know perfectly well before? What are the results of your survey for students of society and of industry? The discoveries, then, which I have to report, are as follows, taking the adverse results first:

I. An altogether incredible amount of overwork by everybody, reaching its extreme in the twelve-hour shift for seven days in the week in the steel mills and the railway switchyards.

II. Low wages for the great majority of the laborers employed by the mills, not lower than in other large cities, but low compared with the prices—so low as to be inadequate to the maintenance of a normal American standard of living; wages adjusted to the single man in the lodging house, not to the responsible head of a family.

III. Still lower wages for women, who receive, for example, in one of the metal trades, in which the proportion of women is great enough to be menacing, one-half as much as unorganized men in the same shops and one-third as much as the men in the union.

IV. An absentee capitalism, with bad effects strikingly analogous to those of absentee landlordism, of which also Pittsburgh furnishes noteworthy examples.

V. A continuous inflow of immigrants with low standards, attracted by a wage which is high by the standards of southeastern Europe, and which yields a net pecuniary advantage because of abnormally low expenditures for food and shelter, and inadequate provision for the contingencies of sickness, accident, and death.

VI. The destruction of family life, not in any imaginary or mystical sense, but by the demands of the day's work, and by the very demonstrable and material method of typhoid fever and industrial accidents, both prevent-

able, but costing last year in Pittsburgh considerably more than a thousand lives, and irretrievably shattering many homes.

VII. Archaic social institutions such as the aldermanic court, the ward school district, the family garbage disposal, and the unregenerate charitable institution, still surviving after the conditions to which they were adapted have disappeared.

VIII. The contrast—which does not become blurred by familiarity with detail, but on the contrary becomes more vivid as the outlines are filled in—the contrast between the prosperity on the one hand of the most prosperous of all the communities of our western civilization, with its vast natural resources, the generous fostering of government, the human energy, the technical development, the gigantic tonnage of the mines and mills, the enormous capital of which the bank balances afford an indication, and, on the other hand, the neglect of life, of health, of physical vigor, even of the industrial efficiency of the individual. Certainly no community before in America or Europe has ever had such a surplus, and never before has a great community applied what it had so meagerly to the rational purposes of human life. Not by gifts of libraries, galleries, technical schools, and parks, but by the cessation of toil one day in seven and sixteen hours in twenty-four, by the increase of wages, by the sparing of lives, by the prevention of accidents, and by raising the standards of domestic life, should the surplus come back to the people of the community in which it is created.

As we turn the typewritten pages of these reports, and as we get behind them to the cards of original memoranda on which they are based, and as we get behind them again to the deepest and most clearly defined impressions made in the year and a half on the minds of the members

of the investigating staff, it is the first and the last of these results that we see more clearly than any others—the twelve-hour day, and social neglect. Sunday work and night work are but another expression, as it were, of the same principle of long hours of overwork, of which the typical and persistent expression is the twelve-hour shift. Nothing else explains so much in the industrial and social situation in the Pittsburgh district as the twelve-hour day, which is in fact for half the year the twelve-hour night. Everything else is keyed up to it. Foremen and superintendents, and ultimately directors and financiers, are subject to its law. There are no doubt bankers and teachers and bricklayers in Pittsburgh who work less, but the general law of the region is desperate, unrelenting toil, extending in some large industries to twelve hours for six days one week, and eight days the next. There is no seventh day save as it is stolen from sleep. There are of course occupations, as in the blast furnaces, in which there are long waits between the spurts of brief, intense expenditure of energy, but the total effect of the day is as I have described.

For the effect, as well as for the causes, of the twelve-hour day, and for a more exact statement of its extent, its limitations, and the exceptions, I must refer to the reports. We have attempted to trace the influence of the great contest of 1892, and of the incoming waves of immigration, to indicate the effect of the long day on the length of the working life, on industrial efficiency, on home life, on citizenship. When it has all been done, however, the unadorned fact that in our most highly developed industrial community, where the two greatest individual fortunes in history have been made, and where the foundations of the two most powerful business corporations have been laid, the mass of the workers in the

master industry are driven as large numbers of laborers whether slave or free have scarcely before in human history been driven, is surely an extraordinary fact. I do not mean to suggest that the conditions of employment are less desirable than under a system of slavery. What I mean is merely that the inducement to a constantly increased output and a constant acceleration of pace is greater than has heretofore been devised. By a nice adjustment of piece wages and time wages, so that where the "boss" or "pusher", as he is known in the mills, controls time wages prevail, and where the individual worker controls piece wages prevail; by the resistless operation of organized control at one point, and the effort to recover earnings reduced by skillful cuts of piece wages at another; by the danger of accident, and the lure of pay which seems high by old country standards, the pace is kept, is accelerated, and again maintained. There is one result, and there is no other like it.

All of these results of the survey, relating to overwork, low wages, immigration, destruction of families, archaic institutions, and indifference to adverse living conditions, appear to me worthy of your very careful consideration. They are presented without exaggeration or prejudice in the papers that have been written and in the fuller reports that are to follow. It is possible that yellow journalism would find here some justification. When Mr. Brisbane the other day gloried in the yellowness of his newspaper, chuckled over the unsuccessful attempts at imitation by other journals, compared his color effects with the Almighty's painting of a lurid sunset, and reached his climax by expressing regret that they had not yet been able to make a noise resembling thunder, I confess that, having in mind the unpublished records of the Pittsburgh Survey, I had a momentary pang of regret

that we were not in position to set them free by some such methods as those which Mr. Brisbane so unblushingly defends. The reading of a paper in a scientific society, and the publication of a few special numbers of *Charities* seem inadequate. However, we must accept the limitations along with the great advantages of the media in which it has pleased Providence to permit us to work. I therefore proceed to present certain other facts which I would not wish to classify as either adverse or favorable, and finally to give a brief and very inadequate enumeration of the distinctly favorable indications.

Outside the mills, the wages of ordinary day laborers in the Pittsburgh district are from \$1.50 to \$1.75 for a ten-hour day. The municipality pays more—\$1.75 to \$2 for eight hours. In skilled trades, in seasonal trades and in thoroughly unionized trades, compensation is higher. The level toward which wages tend is \$9 to \$10 for a sixty-hour week. Common laborers in the mines, because of their union, earn from 50 to 90 per cent more by the hour than laborers of a similar grade outside. Motormen and conductors, under their union agreement, earn 25 per cent more per hour than teamsters, although their occupation requires no more time in which to become proficient. In the building trades, which are seasonal and organized, the wages are \$3.40 to \$5.20 for eight hours; and in the metal trades, which are continuous and partly organized, wages are \$2.75 to \$4 a day of nine and ten hours. The destruction of unionism in the steel mills has had effects which are too far-reaching and important for brief summary here, but they are described by Mr. Fitch in the reports of the survey with thoroughness and a wealth of illustrative detail. In general I may say merely that the low wages of unskilled immigrant labor are higher than they were fifteen years ago, but that

the wages of skilled labor formerly organized are lower.

Though it may seem extravagant, I am inclined to claim for the survey the discovery of the Slav as a human being, though I do not overlook the scientific studies of Dr. Steiner or the illuminating articles which we have previously published in *Charities* from Miss Balch on the Slavs in Europe and America. I refer here, however, more especially to Mr. Koukol's study of his compatriots, his analysis of their character, their attitude toward America, and the effect on them of such conditions as those under which they live and work in Pittsburgh and the neighboring mill towns. Over one-half of the workers in the steel mills are Slavs, and in the total immigration Slavs are one of the three largest racial elements which we are now absorbing into our population. An anomalous feature of the whole situation is that our greatest industrial community should thus be dependent on the supply of able-bodied laborers from agricultural communities five thousand miles distant.

On the credit side of the account there are at least the following considerations:

I. The adverse conditions are, after all, conditions which naturally, or at least not infrequently, accompany progress. They are incidents of the production of wealth on a vast scale. They are remediable whenever the community thinks it worth while to remedy them. If the hardships and misery which we find in Pittsburgh were due to poverty of resources, to the unproductivity of toil, then the process of overcoming them might indeed be tedious and discouraging. Since they are due to haste in acquiring wealth, to inequity in distribution, to the inadequacy of the mechanism of municipal government, they can be overcome rapidly if the community so desires.

II. There are many indications that the community is

awakening to these adverse conditions, and that it is even now ready to deal with some of them. I have already cited instances of new movements in this direction, and the detailed reports cite many other favorable signs. The arrest of councilmen and bankers for bribery may for a time necessarily divert attention from the improvement of bad conditions to the prosecution of individual malefactors. But this interruption to fundamental social reform may serve to strengthen the determination of citizens who see what work is to be done, and who see that the city administration is courageously undertaking it, to defer the anticipated reversion to ordinary machine politics and its corrupt alliance with predatory business interests.

III. It is fair to point out as a favorable result of the inquiry that there is an increasing number, including the mayor and other city officials, officers of corporations, business men, social workers, and others, who are entirely ready to enter with others and with one another on the dispassionate search for causes and remedies, recognizing that the adverse conditions are there, recognizing that distinction lies not in ostrich-like refusal to see them, but in statesmanlike willingness to gauge them and to understand them, and, so far as it is possible, to remove them. Pittsburgh is unique only in the extent to which tendencies which are observable everywhere have here actually, because of the high industrial development, and the great industrial activity, had the opportunity to give tangible proofs of their real character and their inevitable goal.

IV. It will be made apparent also when the survey publishes its findings that in the period immediately preceding the undertaking there had been several noteworthy advances in Pittsburgh. A reform mayor had been elected.

Greater Pittsburgh, with Allegheny as the principal accession, had been decreed, and incidentally in this process one of the most conspicuous of our national "fences" for thieves and criminals had been thrown down. Plans had been made for a suitable civic celebration of the one hundred and fiftieth anniversary of the founding of the city. The administration, with the coöperation of smoke manufacturers, had entered upon a death grapple with the smoke nuisance, a big boulevard system had been created, and a five million dollar filtration plant had been installed.

The net result of the survey, so far as it throws light on the inquiry formulated on the program, whether modern industry and city life are unfavorable to the family, is to suggest an affirmative answer. Very unfavorable, very disastrous consequences, are clearly discernible. Whether they are inseparable from industrial life in the city is for the future to determine. Yellow journalism, one very crude but not altogether ineffective method of popular education as to certain of the unfavorable effects of modern industry, we reject as not consistent with our traditions. This may suggest, however, that, as an alternative educational scheme we shall do well to utilize in the class room and in serious discussion such material as is furnished by the Pittsburgh Survey and by other similar inquiries which have been or may be set on foot by government or by voluntary institutions endowed for the purpose. Assuming accuracy in the field and suitable editorial revision, it is within bounds to say that we shall soon know more about Pittsburgh than we have known about any other of our American industrial communities. That in itself is something, but our chief interest in that result will lie in the stimulus which happily it may give to the desire and the determination to learn as much or more by similar or by better methods about other communities.

ARE MODERN INDUSTRY AND CITY LIFE UNFAVORABLE TO THE FAMILY?

CHARLES R. HENDERSON.

The essence of the question under discussion is *not*: Is life in an industrial city more unfavorable to the family than it formerly was? nor, Is life in an industrial city more unfavorable to sound family life than country residence? but rather, What are the facts about urban conditions which have a harmful tendency, and are these conditions necessarily inherent in urban organization of industry, or are they capable of improvement by known means? If not by known means, then at what points should we direct and concentrate our investigations?

It is not necessary here to reiterate the proof that the cities are gaining rapidly in all parts of the civilized world, nor to explain the movement cityward. This is already familiar to all. If any tendency is part of destiny and fate, this seems to be such. Even when people are perfectly aware of the effect of urban ways on longevity, they seem to prefer the brief and merry, or at least exciting, career in cities to a cycle of far and drowsy Cathay.

"Modern industry" is almost equivalent to "city life", because the great industry, the factory system, builds cities around the chimneys of steam engines and electric plants. Cheap production of commodities by machinery requires some degree of proximity of operations. Our systems of transportation and trade work in the same direction. We may, then, ignoring exceptional conditions, discuss directly the effects of urban residence on family life, and treat the mill, shop, and factory as special aspects of city life.

The dwelling, the street, the places of work and recreation are the outward and physical factors which directly affect the fortunes of urban workmen and their families. The habits and conduct of the people under these outward conditions are also causal factors, and all the influences react upon each other and reverberate in countless ways.

I. What are the facts in relation to the *physical well-being* of the family in cities? The social function of the normal family is to maintain the life of the community at its best by producing, rearing, and educating sound and vigorous offspring. The statisticians have assembled for us the evidences of relatively high morbidity and mortality in cities, and it is not necessary to reproduce the tables; the general results are sufficient for our present purpose.¹

Density of population is characteristic of cities and produces conditions which increase morbidity and mortality. The death rate in cities is generally, though not always, higher than in the surrounding country. This is true of every state in the Union. The death rate is usually greater in the ratio of the size of the city, although the improvements in modern sanitary methods are telling with better effect on cities than on rural communities, owing to the more prompt and well administered application of science under municipal government.

The death rate of infants has hitherto been especially marked in cities owing to the defective supply of milk, and probably to the neglect of infants by mothers who

¹ Mayo-Smith, *Statistics and Sociology*, pp. 128 ff. (deaths); pp. 154 ff. (sickness).

Weber, *Growth of Cities*, Chs. VI, VII.

Westergaard, *Morbidität und Mortalität*.

Bailey, *Modern Social Conditions*, p. 243.

Newsholm's *Vital Statistics*.

These give the primary sources.

work for a living away from home. The exhaustion of girls in factories and mills tends to increase the mortality of these infants after marriage.

The danger from infectious diseases is increased in crowded tenements. Tuberculosis and pneumonia are made more common and fatal by the fact that common halls and corridors carry the germs of these dreaded diseases into every apartment, so that a single patient quickly exposes numerous neighbors. When light and ventilation are defective, these evils rage with all the more intense virulence.

The diseases caused by occupations affect the vigor of the family in various ways,—directly by impairing the general health and poisoning the germ plasm, and indirectly by reducing the food supply and the comforts of clothing and dwelling.

In the absence of adequate and compulsory sickness and invalid insurance, the cessation of income of the stricken husband and father means gradual starvation and the diseases which always prey on bodies imperfectly nourished. The people of the United States have not yet become awake to the misery which assails the domestic life from this cause; and we are behind all other civilized nations in providing insurance. We have, after stubborn resistance of the *laissez-faire* tribe, secured a compulsory poor law and compulsory education. The next logical step is compulsory insurance in its whole range, on grounds of public health.

Injuries and diseases caused by occupation, and also the employment of women and children under unfavorable conditions are factors in the destruction of sound family life; and, as a rule, these evils are more serious in urban than in rural industries.

Exposure to the elements and the rapid increase of

complicated machinery, sometimes driven by steam power, are facts of importance in agricultural occupations, and require more attention and investigation than they have hitherto received; but at worst they do not equal the perils of certain situations in manufactures and transportation.

The dwelling has been the center of anxious interest in cities for a long time. The sweated industries, carried on in the same rooms where the family lives, are more difficult to control than the factory industries, and they are a perpetual menace to health. After the great work of De Forest and Veiller on the *Tenement House Problem*, little remains to be said in this connection; although local investigation must be made to arouse the conscience of the people and authorities of any particular community. We also need a volume, based on scientific study, of the perils to health in country residences. It is amazing how little impression an investigation in Pittsburgh or New York makes in St. Louis or Chicago; it is so easy to parry a stroke by pleading a difference of situation.

The places of recreation and culture in cities are often crowded and almost always perilous to health, and hence to the family. Theatres, dance halls, saloons, and even churches are not rarely means of infection.

How far are these evils due necessarily to industry and to urban life? And how far are they preventable, avoidable by known measures? Preventive medicine and public hygiene have already done more for cities than for the country, and we seem to be at the beginning of a powerful and concerted movement to combat all these evils.²

II. Are the conditions of city life favorable or unfavorable to fecundity? The answer must be guarded, and

²See Dr. G. M. Kober's paper on industrial diseases in Bulletin 75, Bureau of Labor, 1908.

must take account of the elements of population, occupations, presence of immigrants, age groups, demands of fashionable society, etc.³

"In Germany the birth-rate for the entire country is from 4 to 6 per cent higher than for cities of 50,000 and over."⁴ In Hungary this is true. In Massachusetts the birth-rate was higher in towns. In Sweden the birth-rate of cities has gained upon and passed the rural birth-rate. The birth-rates of large cities, as London and Paris, are slowly falling. The social position of the family has a decisive influence, the births being in inverse ratio to income. "The most obvious explanation of a high birth-rate would be a large proportion of women in the child-bearing period. The cities have a larger percentage of such persons, hence for this reason, and not because of greater fecundity of city women, do the cities often have a high birth-rate."⁵ The cost of living is greater in cities than in the country, and the necessities of life must be paid for in cash. Income is more uncertain. Multitudes of unskilled workingmen are liable to discharge on an hour's notice; and this is true of clerks and salesmen. This uncertainty of income is an important factor in relation to the production of offspring.

Furthermore the city child is not so early a producer as the child on the farm, whether boy or girl. Very early a rural child can be a real aid in kitchen or field. This can be modified by earlier trade training from sixth grade up, as is now provided in Chicago by some half-day schools and shops. The attractions of pleasure and comfort make a stronger appeal to the urban dweller than to the farmer. The difficulty of securing quiet and retirement during pregnancy in a tenement house or expensive

³ Bailey, *Modern Social Conditions*, p. 108.

⁴ *Idem.*

⁵ Weber, p. 331.

apartment residence is a factor of no slight significance, especially when sentiment among women makes maternity ridiculous.

III. Communistic habits tend to create and sustain communistic beliefs and sentiments; and these are distinctively unfavorable to the principles upon which the monogamic family is based. Paul Göhre describes his experience in a German industrial community, where men work all day in a common shop, eat their luncheon in crowds, seek their entertainment in throngs, travel in a mob, and, before marriage, satisfy their sexual appetites in a common brothel. The same phenomena may be observed in any large industrial town. If the type of family we have known and which is maintained in the country is desirable, then these forces must be regarded as disintegrating and perilous. Are the evils of such communistic living avoidable? Are there socializing influences mixed up with the dangerous tendencies which may well be fostered?

IV. Certainly there are advantages in urban life which must favorably affect the domestic institution. There are wider and more rapid means of communication and of receiving impressions; although the rural telephone and trolley are making marvelous changes outside the cities. There are more mental stimuli in the thronged street than in the sleepy lanes, and along the quiet waters of pastures and meadows. It is possible that the urban socialization of industries gives to the city woman the advantages of slavery without its cruelty, and thus creates a wider margin of leisure,—the first condition of higher culture. Certainly, as all admit, our largest leisure class is made up of women from whom wealth and modern mechanical devices have taken away numerous household cares and labors.

V. Divorce is an effect of urban conditions and beliefs; it is an effect of evil and sometimes the milder evil selected out of many worse miseries. In the United States in about 95 per cent of the cases the rate is higher in the counties in which large cities are situated than in the counties where the population is principally rural;⁶ and this in spite of the fact that Catholics gather in cities.

Only of recent years has the prevalence of venereal diseases, and especially gonorrhea, been carefully studied. Even yet the public is not fully aware of the domestic misery caused by these diseases contracted by extra-marital intercourse by men and communicated to innocent wives and children. The records of divorce courts rarely mention the real ground on which good women apply for divorce, and the federal statistics, therefore, must be studied in the light of investigations on which judicial records throw little light. Now the social evil is distinctly an urban evil, and so far as it leads to divorce must be charged in great part to the conditions of urban life. The same is true of the use of narcotic poisons and alcohol, to which so much domestic ruin can be traced. It is not creditable to many of the scientific men of America that they have underestimated the importance of this factor, and some of them have so written that their sentences are used in advertisements of brewers and distillers to blind the eyes of the uneducated.

VI. Some writers have emphasized the value of city life as an agency of social selection; the strong and capable are given a career while the feeble in vitality and character go to ruin and are weeded out. But this kind of social selection is too costly; its lightning strokes kill many of

⁶ Bailey, *op cit.*, p. 206.

the finest human beings along with the neglected; and not seldom the nursery of deadly germs, physical and moral, is in the homes and streets of the so-called unfit. Those who fall into the doom clutch at the fair and competent and drag them to ruin along with themselves. The incompetent must be either educated to fill a useful place and feel strong for productive labor, or sent under guard to die at peace in celibate colonies. That is the only social selection which is worthy of the name of rational; all the rest is wasteful accident, trusting to chance which plays with loaded dice.

None of the urban plagues which have been mentioned are in the realm of destiny or blind nature; all are products of human choices and conduct; and by human energy, guided by science, they can be gradually diminished or removed; but none will disappear without effort. The form of the topic limits our discussion to description of present facts, and, rigidly interpreted, would not permit us to consider how far these actual evils are remedial nor by what means. Of course the greatest and only final human interest lies in the methods of amelioration provided by the science of sanitation, public hygiene, and of education. But the detection and description of the adverse factors implies the possession of a standard and the consciousness of the wrong as wrong. This is in itself an important step on the way to betterment.

In "Uncle Tom's Cabin" Mrs. Stowe put into the mouth of her Yankee woman visiting the South the descriptive words, "Oh heow shiftless!" Now comes Dr. Stiles and tells us that "anaemia, malnutrition, marked indisposition for sustained exertion, and resultant social condition, usually described as 'shiftlessness', which has characterized large numbers of the poorer class of rural

whites in the South, are due to a widespread infection with the *Uncinaria Americana*, or hookworm."⁷

It would be a rational ground for hilarity, to make even a Quaker or a Puritan laugh, if some of the worst demons of economic vice could be expelled from the system with a good dose of vermifuge. Who shall set a bound to science?

A multitude of people will, for good reasons, choose rural homes; another multitude will select urban homes; both may be aided to live a rational life with wholesome surroundings; both can, up to the measure of their capacity, live a complete human life; and already men in institutions of learning, on farms, in cities, and in administrative positions are seeking the ways to the best possible life for farmers and residents of cities.

The literary and scientific man is tempted to regard the farmer as lacking in intellectual quality, because the latter has not expressed his ideas in melodious phrases or buried them in laboratory memoirs. If we look closely we can discover that farmers have really a vast fund of valuable knowledge,—knowledge of vegetables, animals, wounds, diseases, remedies, technical processes, government, law, markets, prices, transportation. The farmer is an experimenter. All he learns he expresses, not in literary form, in articles and books, but in improved land, in selecting according to biological principles the best seeds and the best stock for breeding, in adapting his methods to climate and soil, in building up schools, churches, and rearing healthy children.

We need not be too industrious in making out differences between rural and urban populations. The differences in homes, habits, and satisfactions on which comic cartoonists and some social philosophers lay emphasis,

⁷ Dr. H. B. Young, *N. Y. Medical Journal*, November 28, 1908, p. 1027.

either do not exist, except in imagination, or are merely superficial. The broad hat, rough boots, wild beard, and exposed suspenders of the caricatured "hayseed" have little meaning in respect to the essentials of human character. The city dweller judges by what he sees, and he does not see much of the real farmer. Many of the railroad kings, whom our British Ambassador praises as the ablest men of our nation, are the children of "clod-hoppers" and may retain a little of the ancestral trick of getting over rough ground by a straight path to their destination. We need to be on our guard against hasty, unfair, and misleading generalizations, and prejudices of our Brahmin caste.

Many of our rich men, under expert medical advice, are living a rural life several months of each year for physical and mental health. They are wise who return periodically to the conditions of life which have thus far helped to maintain the vitality of our nation at the highest point. The aristocracy of England, and their imitators, are ambitious to own and occupy country seats. This will lengthen the life of this group,—not always with eugenic consequences. But what of the poor in our cities, whose crowded rooms are pestilential in winter and purgatorial in summer? Is the best we can do for these to send them to the country for a week, or give dying babes a charity ride on a floating hospital? Is even the small park and playground, the miniature reminders of real country, the horizon of our vision? We have already adopted in our building ordinances a minimum standard of cubic atmosphere and square feet of window space for the entrance of actinic rays; but as yet we have not come in sight of a standard of outdoor space for man, woman, and child. We are merely making unscientific guesses and leaving the real control of sky and grass room to individualism

and commercial motives,—that is, to the besotted and the blind. In many cases suburban manufacturing villages, built to escape the rule of trade unions, soon develop unsanitary conditions of smoke, dust, unwholesome housing, bad drainage, and water supply, without securing any of the advantages of rural surroundings.

A more comprehensive system of social control is required in order to promote social selection economically and effectively. What direction must this control take? I offer here some suggestions prepared for another audience:

1. It has been proposed that we try to educate the prosperous and healthy to produce more children. In the first report of the Committee on Eugenics of the American Breeders Association, it was urged: "It is a pressing problem to know what to do to increase the birth-rate of the superior stocks and keep proportionate at least the contribution of the inferior stocks. One of the most promising influences is the eugenic movement started in England by Galton and Pearson to make proper procreation a part of religion and ethics, rather than a matter of whim only. . . . Our appeal should . . . be directed to men of average ability to have families which will bring at least two children to maturity and parenthood and especially to men of superior ability to have larger families." With this conclusion and with this appeal there can be no reasonable ground for controversy. Unquestionably something can be gained by persuading people to consider procreation from the point of view of racial interest and patriotism. The Roman Catholic Church has certainly succeeded in Canada and the United States in urging its members to outpopulate the Protestants; whether always with eugenic results must be a matter for further investigation. At any rate the universal and per-

sistent teaching and counsel in the confessional secures results: general freedom from divorce and from childless marriages. If this mighty religious influence could be made scientific and eugenic—and why not?—it would be an immense help toward improving our American stock.

But there is a limit to the willingness and the duty of persons of ability and health. If they should really try to run a race with the thriftless, the reckless, the dwarfs, the neurotic, the vicious, the criminal, the insane, the feeble-minded, what would be the outlook? Can we seriously urge this policy without further measures? The effect might be too costly, might even lead to the exhaustion and degeneration of a large number of conscientious and morally earnest mothers. Society has no right to ask of such persons unreasonable sacrifices in a hopeless competition with the unrestrained appetites of the unfit and undesirable.

2. There is a way by which society can secure a better stock in one or two generations, and that by the use of legal powers which it already exercises without raising any ethical or constitutional questions. It is not necessary to reproduce in a brief report the mass of facts collected and presented with almost passionate earnestness by Dr. Rentoul.⁸ We have at hand the celibate colonies of insane, feeble-minded, and epileptics. The policy of segregation nowhere raises doubt or general opposition. It is clearly and distinctly the right of a commonwealth, when called upon to support a large number of the obviously unfit, to deprive them of liberty and so prevent their propagation of defects and thus the perpetuation of their misery in their offspring. But the policy of segregation has one disadvantage, which Dr. Rentoul has made prom-

⁸ Race Culture or Race Suicide.

inent: the insane are discharged when "cured", and yet become parents of degenerates; and the feeble-minded and epileptic cannot always be guarded so as to prevent propagation. Therefore the policy of painless asexualization is offered and has found a place in the laws of Indiana.

3. But no social policy of segregation or of asexualization can be complete or adequate without vigorous and comprehensive measures for arresting the forces which tend to poison the germ, the very source of life and inheritance. The aim of eugenics is not limited to selection of parents; it includes all the measures which promise to improve the quality of the parents or to prevent their degradation. It is slow and uncertain work to persuade the capable to attempt to outpopulate the defective and abnormal; society in self-defense must seek to diminish the causes of degeneration. Several able writers on eugenics have declared that we cannot look to improvement of conditions for improvement of the human race. Granting that better food and housing will not enable tuberculous and paralytic parents to produce healthy offspring, it remains true that improved wages, nutrition, and and wholesome conditions would prevent the beginning new series of degraded and exhausted persons. (*The ruin of the germ cells*⁹—*Blastophthorie*—*Keimverderbnis*).

It seems to be established, and admitted by Weissman, that the germ cells in their most intimate structure can be so affected by poisons, and even by malnutrition, as to transmit certain evil effects to the offspring. Therefore it is not necessary to enter upon a discussion of the controverted topic of the inheritance of acquired characters. The sperm cells or the ovum or both may be so damaged

⁹ Aug. Forel, *Die sexuelle Frage*, p. 33.

in the parent or parents that the offspring will show the consequences.

Forel writes: "By Blastophthorie (Keimverderbnis) I understand . . . the effects of all directly abnormal and disturbing influences which affect the protoplasm of the germ cells, whose inherited determinates in this way are injuriously altered. Blastophthorie works in this way on germs not yet united, and in that way effects a beginning of what one calls inherited degeneration, of whatever kind it may be." . . . These evil results then pass on from this beginning to subsequent generations. Among the poisons which have the power to damage the germ cells, Forel mentions especially alcohol. Idiots, insane, epileptics, dwarfs, psychopathic persons are the issue of alcoholized parents, parents who may have been vigorous and sound in every particular.

This brings into consideration the facts relating to other poisons; as the toxic results of tuberculosis and other diseases, of lead poisoning, phosphorus poisoning, and nicotine in strong doses. The so-called industrial or professional diseases gain a new interest in this connection.

The contest with venereal diseases, both gonorrhea and syphilis, becomes significant for eugenics. It is well known that syphilis acquired by a parent sometimes destroys or cripples the offspring. Gonorrhea is a common cause of blindness; the inherited effects upon the constitution of the children require serious investigation; of its destructive power in the mother no room is left for doubt.

Dr. E. Kraepelin says:¹⁰ "We know some of the important and widespread causes of insanity, the combating of which lies not only within the realm of the duties, but

¹⁰ *Die psychiatrischen Aufgaben des Staates*, p. 2.

also of the powers, of the state. The first of these is the abuse of alcohol. . . . About one-third of the surviving children of dipsomaniac parents will become epileptics. According to Bourneville more than one-half of the idiotic children proved to have alcoholic parents." Dr. Kraepelin, with many others, emphasizes the frequent connection between some slight intoxication and the occasion of venereal diseases, with all their sad retinue of suffering, especially to women.

Some educational advantages may be gained by laws requiring a medical certificate of health from a public physician as a condition of receiving a license to marry. This measure would cause many a young man to reflect before he brought upon himself a loathsome and highly infectious disease. But such a law would have little influence on unscrupulous persons who satisfy their appetites without regard to marriage laws; they must be reached by other means.

Competition with the inferior and the unfit is one of the influences which cause thoughtful and provident persons to limit their offspring. This was the conclusion of one of our greatest economists, Francis A. Walker: "Whatever were the causes which checked the growth of the native population, they were neither physiological nor climatic. They were mainly social and economic; and chief among them was the access of vast hordes of foreign immigrants, bringing with them a standard of living at which our own people revolted."¹¹ Now the excessive increase of any undesirable class will "give a shock to the principle of population" among persons of higher standards of life. Thousands of persons of the Society of Friends and others who would not or could not own slaves emigrated from the South before

¹¹ *Discussions in Economics and Statistics*, II, 426.

the Civil War to escape competition with slave labor and from the sense of social inferiority which went with manual labor. But now there is no way of escape; therefore the families of superior ability and higher standards grow smaller. To encourage persons of normal life and civilized standards to have more children some better guarantees must be given than by government that these children will not be driven to the wall by immigrants of a lower order. This is not an argument against immigration, but only against the immigration of persons who can never be induced to demand a civilized scale of life. A great deal is justly said of a "simple life"; but that should not mean a return to savage life.

RURAL LIFE AND THE FAMILY.

KENYON L. BUTTERFIELD.

This paper does not pretend to be a scientific statement of all of the reactions which environing conditions may bring to bear upon the family living in the open country. So far as I am aware, this whole matter has not been worked out by anyone with any degree of fulness. I wish that some of our sociologists would take up seriously the study of the effect of typical rural life, not only upon the rural family, but upon the rural individual, and determine the relationships between the rural environment and the rural mind. I am here merely setting down some observations which are the result of considerable association with the rural people in different parts of the country, and of some attempts to study the structure and influence of various rural social institutions.

Isolation is the chief social characteristic of rural life. But, so far as isolation is a physical fact, rather than a state of mind, the word must be used in a wholly relative sense. Isolation of country life varies all the way from the occasional hamlets and villages of the closely populated irrigation districts to the genuine loneliness of the almost boundless stock ranges, with all gradations between. It is, however, the one great fact that stands out in any comparison between the social environment of a family living on the land and a family living in the town or city.

This isolation is a separateness of the farming class from other classes. Consequently, a family belonging to this separated class must be influenced by the charac-

teristics and the standards common to the class as a whole. It is also an isolation of families. A very small proportion of our American farm families live in hamlets or villages. The families of the farm are scattered; few farm houses are closely adjacent, at least from the point of view of the city man.

Of course, it is to be observed that physical contact in the city means nothing, from the family point of view. Contiguity does not necessarily breed acquaintanceship. Probably the mere fact of farm houses being twenty rods apart, or half a mile apart, is not so significant as the fact that separateness of the farming class and scattered farm homes produce a lack of social friction between individuals, between families, and between classes, that has a significant bearing on all those concerned.

What, now, are the chief influences of this isolated mode of living upon the life and characteristics of the family, considered as a unit? I list them as follows:

1. Family life of the country is tied to the industry of the country. This unquestionably makes for interest in the work of the farm. Of course it may also result in hatred of farm work. It makes drudgery easy. It makes it difficult to get away from one's work. But this much is true, nevertheless, that the farm family may be considered an industrial, as well as a social, unit, whether the influences of this condition are good or bad, or both. It probably has both good and bad effects; but, on the social side, it certainly has a significant result which may become our second point.

2. There is a coöperative unity in the farm family that is rather striking. The whole family is engaged in work that is of common interest. The whole family often "turns to" when a task is to be carried out. When the holiday comes, the whole family takes part in it. Com-

pared with the average city family, individual interests are subordinated. Each member of the family knows what is going on. Each is in touch with the head of the family, in general if not in detail. The mother's work is ever before the eyes of all the members of the family, including the boys and men. This coöperative unity must have a powerful effect upon the life of the family. Perhaps it has a tendency to give that life too much of an industrial character. There may be too much inclination to "talk shop". There may be too little opportunity for the cultivation of the heart life, or the hearth life, of the family; but there is a certain solidarity in the farm family that makes for the permanency of the institution.

3. Speaking particularly now of the youth growing up in the farm family, it can hardly be gainsaid that family life in the open country is remarkably educative. First, by reason of the fact that both the boys and girls, from even tender years, learn to participate in real tasks. They do not merely play at doing things—they *do* them. They achieve real results. They take part in the world's work. Secondly, by association with older heads in this work, by having a share in these real problems, by understanding at an early age the good or evil results that come from definite lines of action, there comes a certain maturity of mind, a certain sureness of touch, when a job is to be done, that must be a powerful means of development,—particularly in an age when the achievement of tasks is the keynote of success.

4. I believe that, on the whole, the moral standards of the farm family, as a family, are kept on a very high plane,—partly by the fact of farm interests already alluded to, and partly by the openness of life prevalent in country districts. There are in the country few hiding places for vice, and vice usually has enough modesty not

to wish to stalk abroad. I do not mean to say that the moral influences of the country are only good; but I do say that, so far as the purity of the family as an institution is concerned, the country mode of living is conducive to a very high standard.

Thus far I have named those reactions of the environments upon the rural family which seem to be, on the whole, favorable. There is something to say on the other side.

1. Probably, on the whole, mediocre standards are encouraged. If you are brought up in the Ghetto of New York, and manage to get money enough together, you can move up on Fifth Avenue, if you want to. The average farmer doesn't move, unless he moves to town, or to a new region. If low standards prevail in the community, a particular family is likely to find itself influenced by these lower standards. There is a tendency to level down, because of the law of moral gravitation, and because it takes a long time to elevate any community standard. The average country communities are illustrating some of the disadvantages, as well as some of the advantages, of democracy. In some farm communities the presence of hired laborers in the family circle has been distinctly deleterious to good social customs, if nothing else. In the country there is a tendency toward a general neighborhood life on the social side. There is a probability that aspiration, for either personal or community ideals, will get a set away from the farm, with the result that these ideals are likely to lapse in the country.

2. A great deal of farm life is of such a character that it makes it very hard for the mother of the family. Perhaps the effects of isolation are more abiding in her case than in that of any other member of the family. This is not to give currency to the popular, but I think erroneous,

notion that there is a larger proportion of insanity among farm women than among other classes; but it cannot be denied that the type of work in the farm home in many communities, and the few social opportunities, are likely to give a narrowness that must have its result on the general life of the family.

3. The health of the average individual of the country is all that could be desired, at least during the earlier years; but it is not unfair to say that the sanitary conditions, from the public point of view, are not good in the average open country. This must have considerable effect in the long run upon the health of the family, and must have a bearing upon the development of family life.

4. There is on the whole a serious lack of recreative life in the open country, and this fact unquestionably has a strong influence upon the atmosphere of the average farm home. It tends to give a certain hardness and bareness that are not proper soil for the finer fruits of life.

5. The lack of steady income of the farmer's family is a factor that has a great deal to do with the attitude of the members of the family toward life, toward expenditures, toward culture wants, and toward those classes of people that have salaries or other steady income.

It should be noted that country life develops certain traits in the individual, which, without any special regard to the question of family life, must nevertheless influence the general spirit of the family. I refer particularly to the intense individualism of the country, and the lack of the coöperative spirit. There is neighborliness in the country; there is intense democracy; there is a high sense of individual responsibility; there is initiative; but this overdevelopment of the individual results in anaemic social life, which in turn reacts powerfully upon the general life of the family.

To my mind, the advantages of the country in respect to family life far outweigh its disadvantages. This statement must of course be understood to have in mind the great mass of farm families, as compared with the great mass of urban families of somewhat similar industrial and social standards. I make no defense of many woe-begone rural communities that can be found in all sections of the country. But I do believe that on the whole the family life of the open country, whether judged with respect to its intrinsic worth, its effect on the growing children, its permanency as a social institution, or its usefulness as a factor in our national civilization, is worthy of high praise.

MODERN INDUSTRY AND FAMILY LIFE— DISCUSSION

PAUL U. KELLOGG: There are four points which I should like to make. In such a discussion I am under no special obligation to relate them to each other.

In his annual address President Patten made a plea for the pushing out of the economist and his works into practical affairs. Three years ago in a talk which he gave to a group of visitors of a charitable society, he told them that dealing as they were with lop-sided families, families which had something ailing them, they were bound to get lop-sided views of life. They should study, for every family they dealt with on a philanthropic basis, one normal family. This preachment strikes me as indicating a line of joint activity for the economist and the social worker, where the broad view of the one and the methods of the other could be brought together. The case records of charitable societies have long been storehouses of valuable social information. They have been analyzed on the basis of the causes which throw these families into positions of dependence.

In the Pittsburgh Survey we have applied these methods of investigation and record-taking to normal families, which may not have been thrown into dependence but had been thrown into economic distress and lessened efficiency by disease or accident. We have taken as our units for study not the cases applying for charitable relief, but those falling within certain geographical areas or periods of time. Comparing cities of corresponding size for the past five years, Pittsburgh has ranked first and highest in

both typhoid fever and industrial casualties. These two are the prime expression on the one hand of civic neglect, and on the other of industrial hazard and ruthlessness. Our purpose was to measure the social effects on the people themselves. Here we had units more compelling than death statistics, or the charges upon the public treasury which must be met by taxation.

This was illustrated in the economic study of typhoid fever by Mr. Frank E. Wing, Associate Director, who collected data for six wards for a year, showing the proportion of wage earners among typhoid patients, the incomes before and since, the number of weeks sick, the loss in wages by patients and by those who were obliged to give up work to care for them, sickness expenditure for doctors, nurses, medicines, foods, funerals, and the less tangible but even more severe tax involved in lessened vitality, lessened earning power, and broken up homes, which follow in the wake of typhoid. Of 1029 cases in six wards reported in one year, 448 cases were found and studied. Of these twenty-six died. One hundred and eighty-seven wage earners lost 1901 weeks' work. Other wage earners, not patients, lost 322 weeks—a total loss in wages of \$28,899. The cost of 90 patients treated in hospitals at public or private expense was \$4165; of 338 patients cared for at home, \$21,000 in doctors' bills, nurses, ice, foods, medicines; of twenty-six funerals, \$3186. A total cost of \$58,262 in less than half the cases in six wards in one year—wards in which both income and sickness expense were at a minimum. But there were other even more serious drains. A girl of twenty-two, who worked on stogies, was left in a very nervous condition, not as strong as before, and consequently could not attain her former speed. A blacksmith will probably never work at his trade with his former strength. A

sixteen-year old girl developed tuberculosis and was left in a weakened physical condition. A tailor cannot work as long hours as before and was reduced \$1 a week in wages. A boy of eight was very nervous, would not sit still in school, and was rapidly becoming a truant.

Similarly in the case of industrial accidents. At this morning's session Miss Eastman has told you of the incidence of the economic loss due to the 500 industrial deaths in Allegheny county in the course of the year studied, where half of those killed were under thirty years of age, where half were getting less than \$15 per week, where half had families to support, and where, of these latter cases, less than half received any contribution whatever from the employer toward the income loss.

Dr. Patten has told us that the greatest need of the generation is the socialization of law. Here we were putting court decisions and the master and servant law to a pragmatic test, apart from any legal theories of liberty of contract and assumption of risk. How does the common law work out in practice? How does it "cash in" when it comes to the common welfare?

Similar card systems have since been made use of in Wisconsin and Illinois in investigating industrial accidents.

My first point is, then, that the family affords a responsive, delicate litmus for testing many of the economic facts of the present day social order. Its usefulness as such is only as yet partly explored. The serious studies recently made of standards of living—not of dependent families, nor even of normal families under emergent stress, but just the everyday economic issues of life—are perhaps the purest examples of such scientific treatment. Such studies as Mr. Chapin has made illustrate the large body of social fact available from such sources.

My second point is that we are dealing in Pittsburgh with overloaded families. In agricultural and domestic industry great numbers of household operations were performed as by-products by the male workers. Thus the water supply for a man's kine and for his household were identical. Not only is this changed with the division of labor, but the household must be maintained amid city conditions where the single family unit cannot master many wants, and in industrial towns badly located for any purpose other than production. My point is illustrated by a dispute between the superintendent of the Pittsburgh Bureau of Health and the controller of the city, since deceased, a bluff, honest, old-fashioned saver of city funds. The superintendent of the Bureau of Health wanted a rubbish removal system; the controller held that rubbish removal was a householder's private duty. "It is as if", said Dr. Edwards, "every householder in Pittsburgh used his ashes to build his front walks, lit his morning fires with his old newspapers, and fed his swill to the pigs." Dumping places are few and remote in Pittsburgh, and the results have been that every alley, gutter, and corner has festered with refuse; and the problem of keeping the city clean and well has been a hundred-fold increased. Long, scientific, medical names on a death certificate, translated in common parlance, were nothing more than a filthy tin can plus a house fly.

Similarly, we find Pittsburgh for ten years (until 1908) knowing its typhoid problem was a water problem, yet depending for immunity upon bottled water at fifteen cents per bottle; and we find 20,000 old individual privy vaults in the city proper. Time does not admit of the expansion of this idea, from these homely illustrations to some of the more debatable undertakings of the family analyzed yesterday by Mrs. Gilman. Miss Butler's stud-

ies of women in industry, for instance, go to show that in Pittsburgh the whole tone of wages in certain women-employing trades is fixed by the assumption that the girl is half supported at home. My point is that the sooner we disencumber the family of many tasks it is not equipped to handle under modern conditions, the quicker it will be in position to perform its real functions.

Homestead is an example, as Miss Byington has described it, of how the whole task of civilization is thrown back upon the home.

Here, on the one hand, is a town which is created by the greatest steel plant in the world; one of the master industries of the country, protected by our national tariff policies as few industries are protected, and studied at the close of one of the greatest periods of prosperity the country has known. What has that prosperity meant to the workers? Here, on the other hand, we have a town where time is measured since the strike when associated effort among men was crushed out, and where, as a natural sequence, there has been no organization of civic life to meet the community's problems. The mill, and the town because of the mill, have thrown the burden on the family life of the place. And in many things above the average, we find Homestead a town with gulched streets like a mining district, and high death rates, with—until a year ago—unguarded railroad crossings, with rank water, and no clean public recreation. It is a town where a majority of the workers are left no leisure by the mill to bear their share of the family responsibilities, and where, stated roughly, the families of fifty per cent of the workers must choose between eating insufficient food or living in un-American homes, between giving children a normal life or owning a home.

It is a town which sums up the overloading of family life. Eliminating these encumbrances, the standard of

living studies should afford us clearer notions of just what functions we should expect of families, and the minimums which are demanded for their performance—minimums of comfort, as expressed in rentals and clothing, minimums of refreshment, as expressed in food and leisure, and minimums of reproduction, as expressed in terms of strong physical parenthood, and household equipment for caring for the young. On the test of such standards, public opinion could base its judgments as to immigration, hours, wages, workingmen's compensation in case of accident, and other policies that affect or jeopardize these standards.

My third point is that the household, existing against these odds, is made the goad for that damnable driving of men to which Mr. Devine has referred. The mill workers are for the most part tonnage men. They are paid on output. As Mr. Fitch states in his survey report, when the rate "is judiciously cut from time to time, this tonnage system of payment becomes the most effective scheme for inducing speed yet devised. Whatever a man's earnings may be, high or low, his family adjusts itself to that basis and that becomes his minimum of comfort. The man who has had six dollars a day and is reduced to four dollars has a harder time getting along on that than the man who never has been able to develop four-dollar tastes. The mere possibility of greater earnings than any yet enjoyed does not suffice to rouse men to the required degree. Only a reduction accomplishes that, for it makes it necessary to struggle to reach once again the old wage which was the minimum of comfort."

My last point has to do with the relation of the family to the dynamic character of the population of our industrial districts. In the Royal Museum of Munich is a group of models of mediaeval towns, carved out of wood.

The spires and the markets, the city wall and gates, the houses, gardens, and out-buildings are shown with a fidelity that has outlived the centuries. There was entrenched the fixity of things. A man was his father's son. He was burgher, or freeman, or serf, as his father was burgher, or freeman, or serf. His looms and his spinning-wheels and his vats were as his father had contrived them. He lived in the house of his fathers, and it served him well. Pittsburgh is the antithesis of all this. It is all motion. The modern industrial community is not a tank, but a flow. Not the capacity but the currents of its life are important. Sixty per cent of the working population of Homestead are unskilled laborers. The great majority of these are new comers, foreign born. In one of the plants of the Pittsburgh District, the employment agent hired 20,000 men in one year to keep up a pay-roll of 10,000. Unless the skilled worker keeps himself free to sell his labor in the highest market, he is economically at a disadvantage.

I should not want to claim for this idea of flow as the distinctive element in industrial community life, such a revolution of conceptions as Professor Clark wrought in defining the production of wealth in terms of a flow of utilities. But two things are to be noted. The first is that it strengthens the demand that we relieve the family in an industrial community from many of the old household responsibilities. Sanitation cannot be left to Tom, Dick, and Harry if they are on the go. Local health authorities must be developed with strength and scientific standards enough to maintain clear water, adequate sewage, good drainage. Men must have leisure enough to back up this sort of administration with effective citizenship. The lodging of the floating immigrant labor force cannot be left to boarding-bosses and petty landlords. The second

thing is that civic conditions and social agencies must be adapted so that mobile family units shall not be at a disadvantage. Let me illustrate in the matter of shelter. It could be readily demonstrated that the man who lives in a company house, who rents from a local landlord, or who buys his own house in a mill town, is in each case at a disadvantage, either as a householder or a labor-seller. The English coöperative housing movement, by which a workman buys not a building but stock in a housing company, is a movement to give the sense of ownership without clogging mobility. Similarly, the ordinary form of company accident relief association ties the workman up tight, while a rational form of workingman's compensation would give him emergency resources whatever his changes in employment and whatever the disrupting influences of industry upon the family.

The development of such schemes is not more communistic than the development of organized work in a mill is socialistic. They may be defined as giving elements of stability to the family other than geographical. They should lessen the overburdening of the family. By that degree they should equip the workmen to the more readily withstand exploitation and advance his living standards.

ECONOMIC GEOGRAPHY:

AN ATTEMPT TO STATE WHAT IT IS AND WHAT IT IS NOT.

EDWARD VAN DYKE ROBINSON.

Geography is the study of the earth in relation to life,—that is, of physical environment and organic responses. Geography consequently draws its material from all the physical sciences—physics, chemistry, astronomy, geology—and also from the biological sciences, including in a broad sense not only botany and zoölogy, but also anthropology, which considers man as an animal and ruled by necessity.

Until the time of Ritter in Germany, and as late as 1890 in the English speaking world, geography was conceived as the description rather than the study of the earth. It was, in fact, the geography of position, rather than of distribution in a dynamic sense. The standing injunctions were consequently "locate and describe"; and students spent their time learning endless and senseless lists of rivers, capes, bays, counties, capitals, and boundaries, which they were, however, enabled by a merciful provision of nature speedily to forget. Ritter introduced a teleological conception of the world, believing it specially made and adapted for the uses of man. This conception is illustrated clearly, though crudely, by the remark attributed to a famous preacher, that it was "so kind of the Lord to have made the great rivers run through the great cities."

Finally, as a consequence of the Darwinian revolution in biology, came the doctrine that all forms of life are

gradually adapted to their environment; and it is on this doctrine that modern geography rests. This adaptation is organic and passive in the case of plants and animals, and even of man so far as his body is concerned; but it is functional and active in the case of man's economic activities. Thus an elephant transported to Siberia would have to grow a woolly covering, like the mammoth which once inhabited those regions, or perish; but man consciously adapts his mode of life to his physical and social environment, led by considerations of self-interest. And it is this active, conscious type of adaptation, under the spur of economic motives, which forms the subject matter of economic geography. Economic geography thus introduces a new element—the psychic nature of man—and is consequently the point of contact between the sciences dealing with external nature and the sciences dealing with human society.

While geography was thus extending its field toward, and in fact across, the line separating it from economics, a similar expansion has occurred in economics. We consequently have today, in several American universities, courses in economic geography, under various names, offered both in the departments of geology (the mother-science of modern geography) and economics: and not a little doubt seems to exist as to what economic geography really is—whether it is geography, or economics, or a hybrid compound without true scientific unity.

Adam Smith, the most concrete of the classical economists, was keenly interested in the production of wealth; but with Ricardo the interest shifted to problems of distribution, which came to be regarded as the principal part of *political* economy, meaning the aspects of private business that are of public concern. So far as production was studied by the Ricardian school, emphasis was placed on

the part played by capital, and consequently on the importance of capital building as the source of economic progress. Land and other natural resources, on the other hand, were considered chiefly as sources of economic rent. Moreover, the method of reasoning, being abstract and systematic, was unfavorable to any regional treatment of the subject. Nevertheless, the economic importance of division of labor was clearly recognized, from Adam Smith down; and, when supplemented by the theory of comparative costs, elaborated by Cairnes and others, this doctrine was ready for a regional development. In other words, it tended to emphasize the advantages of the geographic distribution of labor. After the Historical School of economists had introduced the idea of relativity as to time and place, the necessity was apparent not only for a historical but also for a regional treatment of economic phenomena,— in other words, for economic history and economic geography.

The actual parentage of economic geography as a school study is, however, to be traced neither to geography nor to economics, but to certain compendia of unrelated scraps of information concerning anything and everything "useful for a merchant to know" which came into use in commercial schools during the eighteenth century; and it must be confessed that economic geography still bears not a few marks of its origin. Thus Scherzer's book (1885) which formed the basis of Chisholm, really belonged to *Wirtschaftskunde*, as this purely practical study is called; and through Chisholm the same encyclopedic and descriptive character has been impressed upon most of the English and American texts published in recent years. This juxtaposition of unconnected and undigested facts, of every degree of importance and unimportance, is perhaps most striking in works and in chapters

dealing with commodities and industries at large in place of upon a regional basis. *Wirtschaftskunde*, "whatever is useful for a merchant to know," is the first thing which, in my opinion, economic geography is not.

In most of the early works on *Wirtschaftskunde*, geography was either ignored or played a very subordinate role, as is indeed the case even in the best of the modern works, such as Oppel's "Natur und Arbeit." But the trading interests of the classes represented in the commercial schools gave rise, as early as the eighteenth century, to a special Trader's Geography (*Kaufmannsgeographie*, *Verkehrsgeographie*, *Handelsgeographie*), which is still represented in the lower and middle commercial schools of Europe by many compendia of miscellaneous facts regarding transportation and trade. It was from this class of works that Chisholm borrowed the name "commercial geography". So far as it is true to its name and parentage, commercial geography deals with accomplished facts rather than causes or tendencies, and with the movement or circulation of goods rather than the fundamental process of production. It thus lacks a causal or other rational interpretation for its masses of empirical facts, and is consequently driven to use the memoriter method almost exclusively. In practice this means that the pages of most of the books are filled with dollars and bushels and tons, in lieu of principles; and that, as some one has well said, the old lists of capes, islands, and bays have been replaced by equally useless lists of exports and imports, which, moreover, have the further disadvantage that they become obsolete over night. Commercial geography, therefore, is also in my opinion what economic geography is not.

What, then, is economic geography? Our friends the geographers would doubtless answer: economic geogra-

phy traces the influence exercised by physical environment upon economic activities. As I conceive it, economic geography does that, and much more: namely, it seeks to ascertain and explain the geographic division of labor,—that is, the localization of industries, in terms not alone of physical environment, but of all the factors involved, cultural as well as physical. It is thus a unified scientific discipline connecting with classical economics through the doctrines of division of labor and comparative costs, and using as material all such facts, and only such facts, as can be shown to have relation to the geographic division of labor. Moreover, it deals with principles rather than details; its method is in the main analytical rather than descriptive; and its controlling purpose is to establish scientific truth rather than to serve practical utility. No fact, in other words, belongs in economic geography merely because it is “useful for merchants to know”; nor is any fact excluded which bears on the geographic division of labor, however remote it may be from the physical environment. But no unrationalized fact has any place in economic geography except such as an “unknown” occupies in a chemical laboratory,—that is, as a problem to be solved.

In accordance with its purpose, economic geography will therefore consider first, under the head of natural controls, how relief, climate, soil, minerals, and other natural resources influence the geographic division of labor. It will next consider, under the head of human controls, race, religion, language, nationality, and government in so far, and only in so far, as they clearly affect the geographic division of labor. And finally it will consider, under the head of economic controls, to what extent transportation, the machinery of exchange, the supply, skill, and standard of living of labor, the supply,

efficiency, and cost of capital goods, the organization of the factors of production, the methods of production, the principle of competitive and complementary industries, and other economic factors, determine the geographic division of labor. Thus economic geography has no concern in general with weights and measures, or money, or banks, or the whole technique of trade; but if it can be shown, for example, that the metric system gives Germany an advantage over Great Britain in South American markets, then the metric system becomes to that extent a factor in the geographic division of labor,—that is, it tends to locate the economic complement of the wheat fields and cattle ranches of Argentina in Germany rather than England. Or, if it is true that the payment of interest on bank reserves in the United States drains money from the country into certain great cities and gives them in consequence a lower interest rate, then the reserve system becomes a factor in concentrating industries and population in the great cities and therefore in determining the geographic division of labor. Again, economic geography does not undertake the general description of methods of production: that is the business of technology. But when the Bessemer process of steel-making came into use, requiring ores free from certain impurities, it caused a migration of the steel industry into districts accessible to such ores. Whenever such a readjustment occurs, the new process must be treated in economic geography, not because it is important or "useful for merchants to know," but because it has become a factor in the geographic division of labor.

After the general or systematic treatment of controls, some of the books adopt the regional plan, others divide the matter according to commodities or industries, and a few attempt to blend the two methods, treating the cot-

ton industry, for example, the world over, both in its agricultural and manufacturing phases, in connection with the South. If the foregoing considerations as to the scope and purpose of the subject are valid, there would seem to be no warrant for such diversity of theory and practice.

The control of industry by physical environment is logically first, since it underlies and conditions all others, even though, as often happens, other controls have become dominant. For this reason, every scientific treatment of economic geography must begin with the natural controls. But it is obvious that relief, soil, climate, and natural resources present striking differences in different regions, consequently the only method by which these differences can be analyzed and the natural control of industry can be adequately arrived at, is the regional method.

In considering each region, moreover, all the different kinds of controls are encountered, though in simpler and more stable combinations, which exist in the world at large; and there is the added advantage, since the connection of economic activities with the soil is more obvious, that the problem of the geographic division of labor is relatively simple and concrete compared to the problem presented by the world economy, with its bewildering complexity and shifting combinations of factors. It follows, therefore, that the intensive regional study of the world, or of some considerable portion of it, must logically precede and form the training for the broader and more difficult generalizations involved in the study of the great world industries,—that is, those producing staple commodities for which there is a world market.

It remains to consider briefly the relation of economic geography to geography, to economics, and to agricultural economics.

Economic geography derives its data relating to man's physical environment from geography, as geography in turn derives its data relating to inorganic and organic nature from the physical and biological sciences; but economic geography is not, for that reason, a part of geography, any more than geography is, for the same reason, a part of astronomy or geology or botany or zoölogy.

Moreover, as already indicated, the natural control of industry is only one of three classes of controls. Besides land, labor and capital are necessary to production, and variations in either labor or capital will affect the localization of industries quite as much as differences in physical environment; yet the facts as to labor and capital are furnished by economic history or economics proper, not by geography. For example, oats is a cool-temperate crop, yet it is grown more or less throughout the South, where the yield falls as low as fifteen bushels per acre, because it can be planted in the fall and harvested between the seasons for cultivating and picking cotton,—in other words, because it is a complementary rather than a competing crop. Again, textile mills are frequently located in steel towns, both in eastern Pennsylvania and in the Rhine country, because of the large number of unemployed women and girls in such communities. Further, Troy, N. Y., manufactures the bulk of the collars and cuffs made in America. Is there perhaps something in the soil or climate of Troy which causes this industry to flourish there? The fact is, of course, that it is due merely to an early start, acquired business connections and prestige, and the formation of a "pool" of skilled labor. Indeed physical environment alone is inadequate to explain the use or disuse of soil and other natural resources. For example, the land in the suburbs of Minneapolis is as well adapted by nature to the growth of wheat as land a

hundred miles away; but it is not, and cannot be, used commercially for that purpose because it has become so valuable that crops yielding a larger return per acre must be planted. And the majority of the mineral deposits in the world are still, and perhaps will always be, economically useless because of considerations based on labor supply, transportation, or markets.

Further, not only are the data of economic geography predominantly derived from other sources than geography, but in reasoning concerning even those data which do come from geography, economic categories are and must be employed. Natural resources indeed—soil, forests, waterpower, minerals—are due to nature, but products are due to man. The natural control of industry must consequently be transmuted into human motives or it remains ineffective. In determining whether or what he will produce, man—the individual man on whose initiative production in the last analysis depends—balances the marginal cost to himself of the effort and sacrifice against the marginal utility to himself of the resulting products, or of their equivalents in other goods; and nature enters into his calculations only as it enables him to produce more goods or at less cost. In other words, natural control is effective only in so far as it becomes transformed in the mind of the producer into considerations of utility,—that is, under modern conditions, of exchange value. And where psychic considerations relating to utility and value enter, there, if anywhere, geography surely ends and economics begins.

In view of the fact that economic geography depends on other sciences than geography for many, if not most, of its data, and necessarily employs economic categories in handling all its data, it would seem a fair inference that economic geography is not a part of geography, nor

yet a mongrel compound of geography and economics, but an integral part of economics. For the same reasons, it would appear that economic geography cannot be adequately handled except by a trained economist.

The relation of economic geography to economics may be further characterized as that of physical basis to theoretical superstructure. It is indispensable, as economic history is indispensable, to establish the facts regarding the development and present localization of industry, which facts, fundamental as they are, economics must otherwise take for granted. To state the matter more practically, to attempt to instruct students in theoretical economics, who know little or nothing of the world of industry from which these theories are derived, is like attempting to make bricks without straw.

The relation of economic geography to agricultural economics, another recent development of economic science, is still imperfectly defined. Both deal in part with the same material; in fact, agricultural economics furnishes to economic geography many important facts and principles, such as the distinction between competitive and complementary crops. But they differ radically in purpose and scope. Economic geography has to do with all classes of industries—extractive, manufacturing, and distributive—in so far as they can be related to the geographic division of labor: agricultural economics, on the other hand, is limited to one industry, or group of industries, which it studies in detail with a view to enlarged returns, both for the individual and for society at large. Agricultural economics does not, it is true, carry its investigations into agricultural technology,—that is, the practical handling of soils, machinery, and crops; but it does deal with everything pertaining to the business side of farming, on the theory that “the state prospers when the

people prosper," and that, in consequence, the most efficient and economical production and marketing of agricultural products is an aspect of private business which is preëminently of public concern.

COÖPERATION IN THE MARKETING OF AGRICULTURAL PRODUCE.

JOHN LEE COULTER.

I think no one will deny that a prosperous and well-satisfied agricultural class in charge of a highly developed agricultural industry is as necessary—if not more necessary—to the welfare of a great nation as perfection in any other industry. I believe that the Commission on Rural Life which has been investigating agricultural conditions will report that much must be done before we can say that the mass of farmers of the United States are satisfied, happy in their lot, and as substantial a foundation for national prosperity as might be desired. Not until the flow of population is reversed and is directed from city to country can we say that the country has caught up with or surpassed the city.

Some of the steps which should be taken and which would assist in the uplift of agriculture and the agricultural class are better educational facilities, better roads, more extended rural mail delivery, the parcels post, and better sanitary conditions. The local, state, or national government can at once make these improvements and thus perform their part in the general uplift. But this is not enough. The farmers must have more money with which to satisfy wants,—real wants which urban dwellers now satisfy but which rural dwellers must leave unsatisfied. What is needed is, first of all, a larger net income. Then the farmers could make fuller use of the schools placed at their disposal, could pay the charges of the parcel post and buy parcels to be carried, could subscribe

for farm papers and magazines and more fully utilize the rural mail delivery, could have horses and carriages or automobiles and use the better roads, which would do so much toward social betterment, and could maintain more sanitary homes.

Nor is it enough that the farmer should be enabled to fully use and appreciate these agencies or institutions established for him by governments. With a larger net income the farmer could have telephones, could encourage interurban electric lines, and use them from time to time in order to keep more nearly in touch with the economic, intellectual, and social developments of the cities. He could reduce some of the drudgery of farming by greater utilization of machinery, hire more and better labor, and give his children more and better educational advantages, improve his buildings and grounds, shorten his hours of labor, and in all directions raise the social, economic, and intellectual standing of the agricultural class.

We have noted two quite different ways of elevating the standing of the farmers,—the first by having the state establish agencies and institutions for their general uplift, the second by making possible a greater net income and thus making it possible for the farmers to utilize these things, and in other ways improve their conditions. But in order to have a larger net income the consumers must pay more for agricultural products or there must be greater economy in production. After a careful study of the economies and wastes of the present system of production, I do not believe that consumers need be called upon to pay a larger price for the produce. There must, therefore, be a greater economy in production.

I mean by production the creation of utilities,—whether they be form or time or place or elementary or possession

utilities. With this definition of production it will be seen that I include not only the first steps,—those which are performed on the farm,—but all steps taken in the creation of utilities and putting them into the hands of consumers. Thus it is clear that marketing is merely one of a series of steps in production, as also are the manufacturing processes, for example, milling of cereals, or packing of meats. All will admit that at the present time we have not nearly approached the most economic methods in many of the steps of production; and I believe that an important change in the business organization of some of the steps is desirable at the present time.

Agricultural colleges, experimental stations, individuals, and groups of individuals, have done so much in the last half century that the steps in production which are carried out on the farms have been developed to a very high standard. Putting into effect the results of successful experimentation would raise that phase to a state of perfection far above most industries. In many of the manufacturing processes referred to such success has been attained and such economy in these steps secured that little need be suggested in the way of improvements in these steps. It is, then, in the work of putting produce in form and getting it to the consumer in the case of such goods as do not pass through factories, and getting other produce to factories, and from the factories to consumers, that great waste occurs, if it occurs at any point.

Under the present system there is a great gap between the farmer and the consumer of his products, which is bridged by a complicated trading or distributive mechanism composed of local and terminal warehouses or elevators, railways, commission merchants, sometimes factories, brokers, and other middlemen. In bridging this gap there are two great classes of possible waste

which may occur and which may be briefly referred to. The first is in the gathering of the produce, sorting, grading and packing the same, storing it until wanted, and shipping it to the consumer. The second is in the organization of the marketing system, and includes terminal receiving, weighing, inspection, insuring, and buying and selling.

Whether the goods are to be changed by manufacturing processes such as milling, packing, canning, brewing, or any other form of change, or directly consumed, as in the case of much fruit, eggs, poultry, vegetables, etc., the time has come when grading, packing, and shipping associations are necessary. Some of the economies possible here are (1) collective sorting, grading, and packing the different grades of produce; (2) coöperative collecting of goods into sufficient quantities of uniform grade to command the better markets; (3) more effective bargaining with transportation companies for better rates, services, special cars, etc.; and (4) coöperative storing, mixing or separating, and handling of produce. Here we have not only economies which make possible larger net income for the farmers and a development of agriculture, but also a better service to consumers at the same prices.

Much has already been done in some European countries along this line and much is yet to be done. Much also has been accomplished in the United States,—for instance, in the cases of coöperative effort among the grape farmers of western New York, vegetable farmers of the South, and fruit growers of the West. The more recent movement of associations connected with the American Society of Equity, such as the peanut farmers, tobacco farmers, wheat farmers, and others of the North, and those connected with the Educational and Coöperative Union of the South, have in mind to make many of these savings.

As an illustration of the need of some such organized effort, we may refer to the fact that in Minneapolis in 1908 more than 25,000 pounds of diseased and decayed meats were taken from the markets by the meat inspector. Most of this was consignments to commission houses by farmers. Much of it arrived in the city in poor condition owing to the failure of the shippers to take proper precautions. Great waste in fruit, vegetables, dairy products, meat, and other perishable agricultural products are reported almost daily, on account of failure on the part of farmers to take proper precautions. Nor is the waste limited to the large class of perishable produce. Referring to the cereals the Minnesota grain inspector's report for the fiscal year 1905-6 showed that 4,111,749 bushels of foul seed, etc., were shipped to the terminals with wheat; and the report for 1906-7 shows that "of the 134,298 car-loads of spring wheat inspected "on arrival" at the several terminal points during the year 6,525 car-loads were docked one-half pound per bushel; 29,146 one pound; 28,079 one and one-half pounds; 25,634 two pounds; 13,306 two and one-half pounds; 12,889 three pounds; 18,133 over three and at an average of four pounds; and 586 were without any dockage,—the net average dockage being 32.2 per bushel as against 27.9 ounces the previous year."

From this it is clear that the farmers ship annually to the Minnesota terminals over 4,000,000 bushels of "dockage" with the wheat, pay freight on it to the extent of a third of a million dollars per year, haul it to the local stations, pay commission and storage on it, and then pass it over to the middlemen.

The supervising inspector of local warehouses says regarding the possibility of cleaning the grain before shipping, "It is feasible because practically all grain shipped

to the terminals is shipped through local houses and would be profitable in two ways; that of the farmer getting back his screenings, which he could use for feed; and in the large amount of freight that would be saved. One local warehouseman in this state told me that in one year he saved \$216 in freight by cleaning all grain that he bought, and the rate from his station was only 7½ cents per hundred."

Another illustration of the need for better organized effort among farmers is the fact that in 1907 out of a total of 223,873 cars shipped, 15,399 were reported by inspectors as in "bad order". Railroad companies should be required to supply cars, of the commonest kind, at least, which are not leaky. Many other illustrations of possible savings could be cited.

We may now refer briefly to the case where farm products pass through some manufacturing process between producers and consumers. In a more extended treatment the cases of perishable and non-perishable goods should be separately considered. The question of ownership of the factory is the most important one here. At the present time there is a very decided movement in the direction of control of these factories by the producers or consumers. Coöperative creameries and cheeseries in this country illustrate control by producers. Minnesota and Iowa have over 1000 coöperative creameries. Factories owned by wholesale and retail societies abroad illustrate control by consumers. Another move in the same direction is the purchase of stock in the factories by the producers or consumers. This makes possible a control of the factory policy. To illustrate we might note that in Germany of the 11,672,816 metric tons of beets delivered to the factories in 1905-6, 2,689,004 tons were grown by shareholders.

Referring to the second of the two general steps in the marketing system,—the commission business and speculation, I would ask this question: Is it not uneconomical? And even if it could be shown to be as economical as a system of bonded agents of shipping associations on good salaries, does it not harbor much of evil? Is there not a chance for some of these middlemen to betray the interests of clients and systematically overcharge for insurance, hauling, storing, etc.; or by buying for themselves when the markets are depressed only to sell to the detriment of both clients when markets are better, on account of knowledge of the market, may they not work to the detriment of both of the other classes? The presence of this great gap between the producer of all but possession utilities and the consumers must be admitted by all, and the chance to take advantage of the clients must also be admitted.

In this connection we might profitably think of the economies of coöperative fruit exchanges, as a result of withdrawing hundreds of agents or buyers of the commission houses from the field, as also of salesmen. The savings are comparable to those which would be possible if one milk man, having on hand several varieties of milk and cream, would serve all consumers in a certain district in place of the present expensive system,—or lack of system.

An analysis of the progress of the last century shows a rapid extension of the principles of division of labor, with comparatively less important changes in the actual processes of production. Every improvement in transportation, storing, or manufacturing, and every change in the wants of the people affecting their demand for goods of the kind under consideration, has complicated the distributive mechanism. But we can have continued

division of labor without having each process performed by a separate class on its own responsibility. With an effective system of coöperation, most parts of the present diffused marketing machinery could be managed by the farmers who produce the raw material.

This is desirable because of the economy, and also because of the effect which it would have upon the coöperators. Much of the monotony of the farm could be destroyed, social activities introduced, business-like methods developed, and the agricultural class raised to a higher plane of thought, feelings, and efficiency than now maintains.

AGRICULTURAL ECONOMICS—DISCUSSION.

J. B. MORMAN: In the first place I desire to call attention to the *nature* of farm products which places them in an entirely distinct class from many other marketable goods. Agricultural products are (1) *necessary goods*, that is, we must have them in order to live, and be clothed, and furnish our homes, etc.; and (2) agricultural products are many of them extremely *perishable*. This last feature is the one which emphasizes the need for the best facilities for the grading and marketing of farm products so as to bring the best results to the producers and the best goods in the best condition to the consumer.

It may be laid down at the outset as a general principle that the more perishable the product the more effective is the principle of coöperation. Thus, if a farmer is engaged in the production of the more stable crops, as cotton, corn, wheat, potatoes, tobacco, flax, etc., it is not absolutely necessary that he rush them to market as soon as harvested in order to get any returns at all, for they will keep for many months with little or no deterioration, and, in fact, may improve in quality with the lapse of time. And, again, there may be a financial advantage in holding the crop for a limited length of time in the expectation of a rise in the market values of the farmer's products. But this is not the case with many other crops and farm products. The daily call of the cities is for fresh milk, poultry, eggs, butter, fruits, vegetables, and so on; and the great perishability of most of these products makes their grading and rapid marketing absolutely necessary, in

order to bring a fair compensation to the producer and satisfactory goods to the consumer.

It would be natural, therefore, to expect that coöperation would develop most rapidly among farmers who raise goods of a perishable nature, and this supposition is borne out by the facts. In all countries the greatest number of societies is to be found among those engaged in the production and marketing of dairy products, meat and poultry products, fruits, vegetables, and other readily perishable goods. Evidently, therefore, for the welfare of all concerned, it is absolutely essential that the economic and social machinery engaged in the care, handling, transportation and distribution of such goods be of the best as regards cleanliness, neatness, and dispatch.

Now, the transportation of such products from their places of production to the great centers of population, which constitute the chief markets, involves at the present time long hauls in fast trains, equipped especially for just such traffic. Thus cars must be iced and well ventilated in summer and warmed in winter. Great care must be exercised in the handling of such goods, and delivery must be made promptly on arrival at destination. The transportation of perishable agricultural products as a rule now requires more skilled labor, careful supervision and management, and special service. This means extra expense to transportation companies and, consequently, extra charges. It is this element as much as any which has called into greater activity the coöperative movement among farmers with the growth of cities and the development of society. It has been thought that by combining into associations for the purpose of shipping in bulk rather than in small quantities, reduction in transportation charges could be brought about. This has been the case both in Europe and the United States, the transporta-

tion companies in the past having met the farmers half way on all such reasonable propositions; and thus there has been a saving on transportation rates to individual shippers, and particularly to small farmers, as a result of coöperation.

The question of the increased returns to the producers for their farm products as a result of coöperation is also worthy of mention. One of the requirements of those entering a coöperative organization is that the goods offered for sale through the society come up to a fixed standard, and every inducement is set before members to improve the quality of their products so as to give the goods of their particular organization a standing in the markets of the world. This is done on the theory that goods well packed and graded will secure a higher price than those not so marketed. As a rule this result has also been accomplished, as witness the high prices of Danish butter, bacon, and eggs on the London market, of Irish dressed poultry and other products on the Liverpool market, and of the packs of fruits by certain coöperative fruit growers on many American markets. To cite a particular case: The Hood River Fruit Growers' Union of Oregon, a combination of more than a hundred growers, in four years, by the excellency of their fruits and the uniformity and high quality of their packs, raised the price of apples from 85 cents to \$2.50 and \$3.15 per box, according to grade and variety of the fruit. Apples shipped to England in 1906 netted this association \$1.32 per box for the same grade that sold in the United States for 85 cents.

Some Canadian fruit growers' associations secured equally good or better results for their members by the sale of their packs on the Liverpool and London markets as a result of careful grading and marketing of their products.

As a general rule, therefore, it can be said that the results of coöperation to farmers in the grading and marketing of their products have been reduced transportation rates, the placing of a better quality of goods on the market, and increased prices. These have been the general results the world over.

The economic limitations of coöperation are more apparent when we examine the results of the movement as regards the elimination of the middleman. Very little of the agricultural produce raised in the United States is sold direct from producer to consumer. The great bulk goes through the hands of commission merchants and through them to retail dealers who sell to consumers. While this method now seems inevitable because of the complex organization of society, the aim of coöperation has been either to eliminate the middleman altogether or to cut down his profits so as to assure greater returns to the producers. But the very organization of industry, whether individual or coöperative, creates middlemen, whose function it is to serve as the agents between farmers and the consumers of agricultural produce. Coöperative organizations *have not been able to dispense with the economic machinery of distribution*. In the United States, where the coöperative grading and marketing of vegetables have reached the highest degree of perfection, the custom of associations is to send to the most important distributing points agents whose duty it is to inspect all cars of produce coming into their territory. The purpose of inspection is to protect the association from dishonest buyers and adjust differences that arise when produce actually reaches the buyer in poor condition. The agent, therefore, is more or less of a middleman, for his salary takes the place of the ordinary commission merchant's profits. In like manner when

dairy products are manufactured, a coöperative association has to employ overseers and factory hands; where eggs are collected, graded, and marketed, the coöperative associations have to employ managers, packers, clerks, and other workmen. In fact, the only difference between the commercial and coöperative systems is that with the latter the expenses are under the control of the organization, and what can be saved in running expenses helps to increase the returns to the producers, whereas over the profits of the commercial middleman the producer has no control. That the middleman's profits were frequently large and out of all proportion to the value of the economic or sociological functions performed, there can be no question; that the small farmer was frequently placed in an unenviable position on account of the perishability of his goods and his absolute dependence upon the honesty of the commission merchant through whom he did business, is also beyond question. In very few cases, however, has it been possible to eliminate the middleman altogether, though coöperation has in some instances dispensed with the need of the itinerant buyer. The expenses of such organizations are sometimes very large, and this materially reduces the returns to the producers: thus, to cite a particular case, the Grand Junction Fruit Association of Colorado. This coöperative concern in 1906 did a total business of \$814,278.62, of which the sum of \$555,813.44 was paid to growers as the price of their fruit and in premiums. Therefore, the expenses for the year 1906 amounted to \$258,465.18, or nearly one-third the total value of the business transacted. Whether or not the fruit growers would have received as much had they shipped their produce as individuals to commission merchants, it is impossible to say; but the figures prove that coöperation cannot dispense with the economic ma-

chinery of the middleman nor escape altogether from what are sometimes regarded as his "enormous profits." But it was to equalize the rewards of labor on the part of these two parties (the farmer and the middleman), in the production and distribution of agricultural produce, that called into being the coöperative organizations, and little consideration has been given as to what would be the effect of the movement on the welfare of the third party in the transaction—the consumer.

Now, it is a well known economic fact that the consumer has to pay in the final purchase price of his goods the sum total of all costs which the complication of modern industry involves,—that is, the costs of production, transportation, wholesale and retail distribution, and the profits of each party. For men are not in business for charity. Consequently, with the development of the social machinery of distribution there has been a gradual rise in prices to the consumer for those particular forms of agricultural produce which constitute our daily necessities of life. Moreover, there seems no reason to expect that coöperation will reduce to any extent, if at all, the price of farm produce to consumers; for the general objects of coöperative associations are to secure to producers all possible advantages in the marketing of their produce and to build up a standard of excellence. These are certainly worthy objects, but they only affect the consumer as regards the quality of goods offered for sale for which, as a general rule, an increased price has to be paid.

In view of these economic limitations in the results of coöperation in the marketing of agricultural produce, I will conclude with a few general deductions:

(1) AS TO THE IMPROVEMENT IN THE QUALITY OF THE PRODUCTS.

This is not a necessary consequence of coöperation. While as a rule the aim of associations is to bring all members up to the same standard, where products are pooled, where individual members do their own packing, the inspection of such packs often results in placing them in a lower grade, either on account of the bad packing or inferior quality of the goods. In other words, coöperation does not absolutely assure well-packed, first-class products. The only assurance of such a result lies in the ambition of the individual to excel, and this would bring better returns to the producer on the merits of the goods. In ordinary business dealings the better quality of products brings higher prices; and when a standard of excellence is maintained the public is usually willing to pay the higher price for the better quality of goods. There is certainly an economic limit, then, to coöperation in this direction.

(2) AS TO THE ELIMINATION OF THE MIDDLEMAN.

This has not taken place, though there has been a modification of the middleman's control over products consigned to him for sale. This is accomplished by the association's own agent at a salary, and in this capacity performs the business functions of the commercial middleman. Under the coöperative régime, therefore, the commercial relations still prevail, though in a form under the control of the association.

(3) AS TO THE BENEFITS TO CONSUMERS.

These are absolutely negative, so far as the reduction in the cost of the means of subsistence is concerned. The possible benefit is in the supply of a better grade of goods at an increased price—a result which can and does occur under individualistic production and marketing of agricultural products.

Though these difficulties which exist as a result of

social organization may not be overcome by means of co-operation, still the movement is worthy of commendation. The great benefits that have followed the institution of coöperative societies among farmers the world over, especially in the advantages that fall to the lot of the small farmer, who in many respects is placed on the same economic level as the large grower and shipper, prove it to be one of the most practical agencies yet conceived and put in operation for promoting the real welfare of the agricultural classes.

The purpose of calling attention to these facts is to contrast the negative with the positive results of the movement. In addition to such benefits as the securing of higher prices to farmers, easier methods of securing credit, better returns for labor, better terms in purchasing supplies, and cheaper transportation rates,—coöperation has had this important result in that it has had a tendency to keep the people on the land, and thus, to some extent, to diminish the tendency of overcrowding in cities. And how to keep the people on the land is one of the most serious of problems the world over. Therefore, any movement that has a tendency to encourage the pursuit of agriculture should receive the heartiest support of national governments. In view of the facts in the case, there is no movement so commendable at the present time as the co-operative organization of agriculture, the industry that of all industries possesses within its range the chief factors for promoting the highest degree of national welfare.

T. N. CARVER: Professor Emery's paper was to me very suggestive and instructive. One theoretical inference from his discussion is that where a certain necessary economic function is performed by men who regard it as a sport or a game, it may be done very cheaply. There

is a speculative element in the buying of products whenever there is a considerable time elapsing between their production and their consumption. Somebody must assume this speculative risk. If there are in the community a considerable number of men who do this as a kind of sport, or through the gratification of the gambling instinct, it may be done very cheaply; in other words, there will be a very small margin between the price which the producer gets and the price which the consumer has to pay.

Mr. Morman's paper on coöperation in agriculture is chiefly interesting to me for the reason that it shows very clearly that there is no real coöperation in agriculture. Generally speaking, there are two types of coöperation,—one that in which the people who do the work coöperate among themselves in the doing of it, the other is where a number of people coöperate in order to get some other kind of work done as cheaply as possible. The first I should call true coöperation, the second quasi coöperation. For example, I once visited a so-called coöperative shoe factory. One might expect that a coöperative shoe factory would be one in which the operators ran their own plant, and ran it coöperatively. This was nothing of the kind. The operators were hired just as they are in a privately owned plant, and were paid the same wages as in a privately owned plant. It was a coöperative factory only in the sense of being owned by a coöperative society which wanted to get shoes as cheaply as possible. That is, they were coöperating not in their work, but in order to get other work done for them as cheaply as possible. This seems to be the only kind of coöperation which is found among the farmers of this country. In other words, there is no evidence that there is any real coöperative farming, where the farms are run and owned coöperatively by the people who do the work.

WATER TRANSPORTATION IN THIS COUNTRY.

ROUND TABLE DISCUSSION. F. H. DIXON, *Chairman*.

F. H. DIXON: The subject of Water Transportation in the United States has grown so rapidly in general interest and has come to occupy so much of public attention that it seemed entirely proper to your chairman to make it the basis of discussion in a transportation round table. Attention was sharply directed to the extent and the comparative inutility of our waterways a few years ago, when business was at its height and the railroads were proving themselves unable to meet the traffic requirements, and the interest then aroused has been kept alive by the meetings of various congresses and by individual discussion.

The question has many phases and gives opportunity for the expression of opinion on many fundamental points, economic, financial, and political. The present situation in the United States has undoubtedly been brought about by our *laissez-faire* policy, which has left waterways and railroads to develop practically unaided by government; and I think it will be generally conceded that where inland waterways and railroads are left to private initiative, the waterways will be unable to compete.

The question then arises, Shall the government step in as it has done in the European countries and subsidize the waterways? Will the expenditure justify itself? Granted that the principle can be defended, are there insuperable difficulties of an engineering or physical character that will endanger the success of such projects,

for example, in the case of the Mississippi and Ohio rivers?

Again, shall such work be undertaken by the state or by the federal government? And if the federal government is to assume the task, shall it be proceeded with slowly and experimentally, or shall we enter at once upon a comprehensive plan, which will contemplate, for example, the issue of five hundred millions of bonds?

Such are some of the questions that suggest themselves. We do not propose to solve them today, but I hope we may get some very definite expressions of opinion upon them. We have passed beyond the stage when mere generalizations and unqualified rhapsodies upon the beauties of water transportation are longer of any value. The threadbare statement which is no truer today than when first uttered, that water transportation is inherently cheaper than rail, will not add to our knowledge of the subject. I hope that the discussion will rather take the form of concrete and definite expression of opinions on the questions involved.

FACTORS AFFECTING THE FUTURE OF WATER TRANSPORTATION IN THE UNITED STATES.

EMORY R. JOHNSON.

The usefulness of inland waterways for transportation, and, doubtless, the extent to which they will be made available for use, cannot be determined merely by considering the capital costs and operating expenses of moving freight by rail and by water. Useful as such a study may be, it can supply only a part of the data required. The problem is a complex one containing several economic factors, some of which seem to be neglected in most discussions of the functions of waterways.

The use of most of the inland waterways of the United States has declined during recent years as the result of two causes, the chief of which has been that the railways have provided most sections of the country with adequate transportation that was usually as cheap as, and almost always better than, could be provided by the waterways. Where the transportation service was performed by the railways without difficulty there was little justification for the expenditure of large sums of money, either public or private, in the improvement and extension of waterways.

Another major cause of the declining use of waterways has been the growing difficulty of maintaining the navigability of our rivers. The practical de-forestation of large areas in the eastern half of the United States has so enhanced the seasonal variation in the flow-off of water as to cause our streams to alternate between periods

of high flood and extreme low water. Our waterways have been more than neglected; their navigability in a large measure has been destroyed by the wasteful cutting of our forests, and by the unscientific methods of tillage whereby the amount of silt thrown into the streams to form bars has become so great as to make it impossible for the rivers to maintain channels as deep and as wide as they formerly had.

The fact that for this and other reasons our inland waterways are not now used so extensively as they have been in the past does not prove that waterways adapted to present commercial needs and kept up to date technically will not be of large future use. One reason why the present light traffic on our waterways does not indicate that they are to continue to be of small service is that there is little prospect of any considerable future reduction in the costs of moving traffic by rail. During the past ten years the unit expense of handling freight by rail, for reasons patent to every student of economics, has grown larger in spite of the fact that the rapid rise in the volume of traffic has, in consequence of the operation of the law of diminishing costs in the transportation business, tended to keep down ton-mileage expenses in the freight service. The tendency towards higher cost is noticeable in bulk traffic as well as in package freight.

Furthermore, and what is still more important, there are reasons for believing that railway transportation in the United States is to be gradually reorganized in such a way as largely to increase the cost of the service. Up to the present time the ideal of the traffic manager has been, and it is still his ideal, to move freight in the largest possible car-load and train-load units. The greater share of the tonnage of American railroads consists of bulky commodities,—such as coal, iron ore, lumber, and grain,—

which can be handled not only in car load lots but in train loads; and which, from the size of our country, must be moved long distances in order to reach the manufacturing centers of the United States and the primary markets within and without our borders. Consequently the aim of the traffic officials has been to build up a transportation machine adapted to the economical movement of this kind of traffic.

Our railroads have been extremely successful and it has been most fortunate for our country that such has been the case. It seems clear, however, that the present freight service of American railroads, efficient as it is, will not long be adapted to doing the transportation work required in effecting exchanges as business is being organized. Time has come to be such an important factor in business that speed and certainty of transportation, although more expensive, may prove to be much more economical. In England, France, and Germany the railroad freight service has for some time been organized so as to accomplish the quick movement and schedule delivery of parcels, packages, and general commodity freight. Such an organization of the rail transportation service is much more easily developed where there is a division of the transportation work between the railroads and the waterways. The division of traffic between the two agencies makes possible the close coördination of railroad freight traffic with the wholesale and retail trade. This coördination enables the merchant to reduce capital cost and makes it possible for the manufacturer to lessen both capital and warehousing expenses by permitting him to make frequent deliveries in small units. This method of conducting the mercantile, manufacturing, and transportation businesses meets the needs of densely populated and highly developed industrial countries such as Germany, France, and particularly Great Britain.

Such an organization of the business of transportation as has been worked out in the three European countries just mentioned does not result in as low average freight rates by rail as prevail in the United States; but the costs of wholesale and retail distribution and of many manufacturing activities are undoubtedly less than they would be were the people of Europe served almost entirely by railroads and not by railroads and waterways. Our dependence upon railroads, almost exclusively, for the movement of bulky commodities long distances even at low average rates, while we at the same time neglect the development and use of our inland waterways, does not necessarily mean that we have organized our work of production and distribution in the most economical manner. Indeed, there can be little doubt that, as social and industrial conditions in the United States approach more closely those prevailing in Europe, we shall find it increasingly desirable to provide ourselves both with well-developed waterways for handling much of our bulky traffic and with railroads more efficient than present conditions permit them to be in the handling of package freight. We, as well as Europe, will find it profitable to minimize capital and warehousing costs.

The use of American waterways in the future will naturally depend in no small degree upon who constructs and maintains them. It is practically certain that all the important works of transportation improvement will, in the future, be executed by the United States government. This means that the work eventually will be more systematically done and that the routes selected for development will be of interstate and national importance. I am not unaware of the present lack of system in the methods by which the United States government now spends the public funds in the improvement of inland navigation.

None the less, I am convinced that the many powerful influences now operating are certain to bring about a complete change in the waterways policy of the United States government. We are apparently passing through a transition period as regards the construction of waterways. Many of the earlier works were executed for local purposes by corporations which were sometimes industrial companies and sometimes common carriers. The larger works were constructed by the states; now there is little probability that either corporations or the states will, except in so far as the states may coöperate with the federal government, invest capital in waterways. The works required for business needs are mainly interstate and national in character. This is so plainly the case that there is rapidly growing a demand on the part of the public that the entire net work of American waterways shall be improved and extended systematically by one authority, with reference to the economic and social needs of the entire nation. In the future but small place in the development and control of waterways will be occupied either by the states or by private corporations.

Possibly the factor of most significance with regard to the future use of American waterways is the growing appreciation on the part of the people of the United States of the vast importance of water as a natural resource that should be utilized as fully as is practicable. The water that falls in rain and snow over our vast territory, like the soil upon which it descends, is a permanent natural resource that can be definitely measured and can be utilized as fully as the agricultural, industrial, social, and navigation needs of the country require. Until recently we have thought of this water resource mainly in connection with navigation; now we are studying it with reference not only to navigation but also to the irrigation

of our arid lands, to the development of the immensely valuable water power, and to the redemption of overflowed swamp areas. To make our water useful for these purposes, as well as to supply ourselves with lumber and fuel, we are setting about systematically to maintain and restore our forests. Unquestionably our appreciation of the necessity of conserving and using the entire water resources of the country simultaneously for irrigation, water power, navigation, and for the people of our cities, will hasten the movement for the development of our navigable ways; moreover, stream control for purposes of commerce will come more quickly because it will hasten the reclamation of vast areas of reclaimable swamp lands.

Conclusion.

Instead of attempting to discuss in detail the many factors affecting the future of water transportation in the United States, the following conclusions are submitted as a basis for discussion:

1. The internal commerce of the United States is growing rapidly and is certain to increase with accelerating speed. The demand for economical transportation facilities for the movement of bulk traffic will not lessen, but will increase—at least for some time to come. It will apparently be economically desirable that the larger trunk line water routes of the United States shall be adapted to commercial uses.
2. The necessity for the development of our waterways is emphasized by the fact that any considerable future reductions in the costs of rail transportation are improbable.
3. The service of American railroads will probably be changed so as to permit the handling of a large volume of commodity freight expeditiously and in small units.

This will tend to make rail transportation costs higher instead of lower.

4. The foregoing facts suggest that the following law is valid: The economy of employing both railroads and waterways for the performance of the transportation services becomes greater in every country and in particular sections of a country with the increase in population and the development and specialization of industry.

5. The future use of American waterways for navigation will be increased by the conserving of our entire water resources for all purposes to which they may be put.

WATER TRANSPORTATION—DISCUSSION.

C. J. BULLOCK: The financial aspects of the question before us should not be overlooked in this discussion. If we may judge from past experience, it is probable that all estimates of the probable cost of projected improvements absurdly underestimate the sums that will be required, and we may expect the ultimate outlay will be from 50 to 100 or even 200 per cent greater than the estimates. We may assume also, if past experience is to be a guide, that with desirable projects there will go a certain number of undesirable or questionable projects which must be included in order to secure needed support for the schemes. On these and other accounts, therefore, it is important to consider the question of expense. Some of the speakers this evening have advocated the plan of making the waterways free, and defraying the entire expense through the issue of bonds,—that is, ultimately by taxation. Tolls collected from those using the waterways are objected to as taxes upon commerce, but this does not dispose of the question. The additional outlay that the waterways will require must be provided for by some form of additional taxation, and it is not improbable that Congress would select taxes which fall upon commercial transactions and are open to precisely the same objection that is brought against the policy of charging tolls. It is further to be considered that, if the policy is adopted of making the improvements self-sustaining whenever possible, greater care will be exercised in authorizing projects, which would be a very desirable thing. From any point of view from which one looks at it, the proposal for inaugurating a comprehensive plan of improvements at the national ex-

pense needs most careful consideration before one gives his assent to it.

STUART DAGGETT: There are two matters which have received less attention in this discussion than I think they deserve. One of them is the question of the importance of terminals in rail and water transportation. The advantage to be sought from water lines lies in the relief from congestion at railroad terminals, not in the diversion of freight from railroad cross-country lines. In the fall of 1906 it was the inability of carriers to get cars through the relatively few miles of yards at Buffalo and at Chicago which injured produce dealers in the East, not their inability to provide trackage outside of those cities. The terminals limit the capacity of the average railroad, not the main line tracks. Now, if this be so, discussion of water transportation should dwell a little more, I think, on the probability of improved terminal accommodation, and a little less on the relative merits of river, canal, and railroad transportation in respect to cheapness and speed of haul where no terminal obstacles are to be overcome. Unfortunately the advantages of water transportation are less apparent when this is done. A canal as well as a railroad has to occupy terminals convenient to shippers, and these are probably as expensive when used for water as when used for rail carriage, if of equal goodness. To illustrate from a concrete case, the problem of providing facilities at the city of New York for the traffic of the enlarged Erie Canal will be one of the most serious which New York state will have to solve in connection with that enterprise.

The second point has to do with relative rates on canals and on railroads. Assuming that tolls are to be charged, and that waterways are to be operated by inde-

pendent companies of boatmen, it seems to me doubtful that the boatmen will be able to underbid the railroads, for the reason that on each shipment they will be obliged to charge a sum which will cover tolls plus cost of operation. This a railroad does not do. Low grade goods by rail pay only a part—sometimes not even that—of the tolls which they would normally be charged, and this is defended on well-known principles of rate-making. The total cost of operation of waterways may be less than that of railways, and yet the rates on low-grade commodities on railroads may be less than waterways can afford to ask. Like the matter of the importance of terminals, this point needs only to be mentioned, and yet it is very apt to be neglected.

THE BEST WAY TO WORK FOR TARIFF REVISION.

H. C. EMERY.

The object of this paper is not a discussion of the arguments for or against tariff reduction, but rather a consideration of certain practical methods for securing such reduction. I proceed on the assumption that whether we are protectionists or free traders in theory, we are agreed that the present tariff is not suitable to our present needs, and that some modification of it is desirable. It is, however, necessary to make a few preliminary observations in order that the point of view from which the practical suggestions are offered will be understood. I shall group such observations and suggestions in the form of nine statements which are not meant to be more than hints furnishing a basis of discussion.

1. The influence of the protective tariff in this country, whether for good or evil, has been greatly exaggerated. It has not been the chief cause of the economic prosperity of this country, not even the chief cause of its great industrial development. On the other hand I do not consider the tariff to have been the great evil which it has been thought to be by many pronounced free traders. In making this statement I am referring to the economic effects alone. The moral evils involved in the undue pressure of private interests on our law making body constitute to me far and away the most important indictment against the tariff, but there is no occasion for a discussion of such a problem in this paper. Economically the tariff has doubtless worked badly in many cases; a higher level of

prices has frequently prevailed and hardship has sometimes come to manufacturers because of the higher cost of raw material. But in other cases I incline to think the tariff has had a beneficial influence in helping toward the development of industries that were well worth developing; even if sometimes their development has led to a condition of monopoly, a condition in turn which may be considered desirable or undesirable, according to one's economic theories. Speaking for myself, I am by no means sure that the economic prosperity of this country would be greater at the present time if the free trade tendencies of the period before the Civil War had come to full fruition, and if we had lived under a tariff for revenue only in the last half century. If the tariff has not been a benefit, it has to my mind been a minor disease which the healthy body economic has been able to carry without great injury.

2. In any case we must recognize the fact that our industries have been built up during a period of protection, and therefore the practical question is not whether protection should have been adopted originally, but whether it should be abolished now, and if not, how far it should be modified. Few of us, I think, would go so far today as to agree with Henry George when he stated that to talk of tariff reform was as absurd as to talk of cholera reform, the only thing to do with either plague was to stamp it out at once. There are, of course, some free traders who still accept the naïve doctrine that "industry is limited by capital" in the extreme form of supposing that a given quantity of capital always results in a given quantity of industry, and, therefore, if capital cannot be employed profitably in one line of industry, it always automatically finds profitable employment in another. This of course involves the assumption that the industry of a

country cannot decay. Today, however, we recognize that the factors that bring about prosperity in the business world are much more complex than a mere enumeration of land, labor, and capital, in quantitative terms. Perhaps it is not too much to say that the psychological factors which determine the "spirit of enterprise", to use Hamilton's phrase, are as important as the physical factors. So far as we believe this, we are bound to recognize the necessity of caution in making radical changes in our commercial policy, and the danger of allowing theory to run away with common sense. If a certain line of industry really could not exist without the tariff, and has existed for a half century under it, he would be a rash man to put in control of public affairs who would follow the theory of free trade to the point of removing all protection to it at a single stroke. That is, for practical purposes, we are not likely to secure successful results if we start out with the assumption that all reductions are good at all times, and are good in proportion to the amount of reduction.

3. This involves evidently the necessity of studying carefully the effects of protection in each individual case and the probable effect of its removal. Such a conclusion is a hard one to arrive at because it involves well nigh insuperable difficulties. I certainly do not feel competent to speak, except in a most tentative way, regarding the effects of a single individual schedule of the present tariff, and it seems well nigh impossible to secure a body of men who can speak with authority regarding all of them. At the same time difficulties like this are inevitable in the case of the government of public affairs, and must be met with such intelligence as the public or its representatives possess. It is possible to suggest a few general principles to be kept in mind in such investigation.

The possible effects from a reduction of the duty on any particular commodity may be grouped under three heads:

a. Such a reduction may have no effect,—that is, the duty may have been nominal. The home market may be so completely controlled by the home producer that the competition from outside would have no effect upon prices or production at home. In this case, of course the duty, although it may be nominally very high, is really no economic injury to the community, except for the irritating effect which it has upon the sensibilities of free traders.

b. A reduction might have the effect of reducing the price of the article materially, while not seriously diminishing the amount of home production. That is, it might simply give to the consumer a portion of the high profits which had formerly been received by the manufacturer.

c. Such a reduction might have the opposite effect of reducing the price only slightly, but thereby so increasing the competition on the part of manufacturers who had been working on a low margin of profit that many of them would have to go out of business and the home production would be seriously curtailed. Evidently it is very difficult to determine which of these three effects would be found in any particular cases. But I venture to suggest that the general rule should be that, where the removal of a duty would mean a decided lowering of the price without any serious reduction in the extent of the home industry, such a duty should be removed. On the other hand, where a reduction of duty would seriously injure the home producer without giving a very material reduction in price to the consumer, the reformer should hesitate before advocating a change.

We may take steel rails for an example. Many tariff reformers seem to be decidedly convinced that steel rails

come under the second of these three cases; that the present price of \$28 per ton is made possible simply by the existence of the present duty of nearly \$7, and that the removal of that duty would mean a reduction in the price of steel rails to that extent; and, further, that this would simply mean a reduction of dividends on a large amount of watered stock, without really suspending the growth of the steel rail business in this country. On the other hand, some manufacturers would have us believe that they come under the third head; that the effect of removing the duty would be to seriously curtail the amount of home production, throwing a large amount of labor and capital out of employment. Without knowing much about it myself, I am rather inclined to think that the duty on steel rails comes under the first of the three heads; and that, although there might be a temporary reduction in the price, the home market is so completely in control of the great steel interests that in general they would be able to maintain not only the present amount of production but the present price policy pretty consistently, duty or no duty. It is undesirable to multiply examples here, but in order to make a little more clear the general principles which I have just suggested, I would suggest that raw wool evidently comes under class B, where the gain to the consumer from removing the duty altogether would be very much greater than the loss to the producer. On the other hand, I should think that the woolens schedule would have to be treated somewhat differently. I should not want to be taken as an advocate of the present high duties on woolen goods, but I should imagine that a moderate degree of protection would still be necessary and that a complete removal of such duties would cause more harm than good.

4. Let us recognize that the argument against protec-

tion based upon the consumers' interests has been proved historically a failure. For some reason, and that I think a pretty natural one psychologically, men in the business world, whether in the position of employer or employed, are far more concerned with their interests as producers than their interests as consumers. So long as the income is large, men don't worry so much about the outgo, and manufacturers will advocate a policy which gives them good prices on a large product rather than a policy which compensates for a fall in such prices by a fall in the cost of their materials. The working man pretty much everywhere will vote for the policy which he thinks will give him high money wages. Wherever the free trade movement has been in any large degree successful, it has been, I think, due to the fact that the movement has appealed to the interest of producers. The English free traders grew pretty hopeless in the task of convincing the English workingman that his interests as a consumer of bread were injured by the Corn Laws; and the real force behind the abolition of protection in England was as much the powerful class interests of the manufacturers as it was the philosophy of Adam Smith, or a public-spirited desire to relieve the public of high prices for food. Adam Smith said in the eighth chapter of his fourth book, that the error of mercantilism had been that it considered the interests of producers to the exclusion of the interest of consumers. His claim was that, since all production is but a means to the end of satisfying the needs of production, public policy should be guided solely with an eye to the interest of the consumer.

This is good economic philosophy but it is bad psychology, because in the modern business world men have really forgotten that they produce in order to consume, and look on the selling of goods in the market as the object

of life, the selling of as many goods at as high prices as possible. It may be said that this is a narrow view, and that the business of those who know better is to educate the public to see that their interests as consumers is more vital. For myself, it seems to me that a century and a half of such teaching has accomplished so little that it is hardly worth while to wait another century and a half before attempting to secure some practical results. Is it not more sensible to accept the fact as it is and shape our course accordingly?

5. When the interest of producers demands reduction in the amount of protection, then such reduction becomes a possibility. This is because in the first place, as already indicated, these interests seem more vital to men than their interests as consumers, and, secondly, because producers are commonly much better organized. A powerful group interest now appears in the arena, capable of making its influence felt; and, when this happens, concrete results may be expected. This interest of the producers in tariff reduction may appear in the form of a demand for free raw materials, although this is not likely to become of great importance, for the reasons just suggested. It may come, however, not from their desire to be able to buy more cheaply, but from their desire to sell a larger product,—that is, their desire to secure foreign markets. In proportion as the manufacturer becomes more and more dependent upon a foreign market for the disposal of his output, he becomes more strongly inclined towards a commercial policy which will secure to him the greatest concessions possible in these foreign markets, in which case he may be more ready to advocate similar concessions on our own part. This I think may be said to be a very general experience throughout the world. The movement for tariff reduction, whether by statute or by com-

mercial treaty, has been very largely in response to the interests of exporting manufacturers.

6. This is where the chief encouragement comes for the reduction of the tariff in this country today. We have most of us got beyond the point of making any predictions in tariff matters, and the present hopes may be met with the same disheartening results which have been met in the past, when a supposed movement of tariff reform has ended in increased rather than decreased protection. Still there does seem to be not only a genuine agitation for tariff revision at the present time, but a very different kind of agitation from that of twenty years ago, the difference lying in this very fact, that the demand comes, now, much more from the producing interests. It is certainly significant that the National Association of Manufacturers should declare in favor of tariff reduction. In many fields, the home manufacturer feels that the home market has been pretty completely secured. He is now not so much afraid of the competition of the foreigner in his own market as he is eager to compete with the foreigner in neutral markets; and, in proportion as his eye turns to the foreign market, his heart feels a change on the matter of high protection. In the case of most of the leading manufactures, the proportion of imports to the home product is decidedly small, while in some cases our exports are already greatly in excess of our imports. These men can make themselves felt much more effectively than any disinterested person advocating the principles of free trade as beneficial to the public at large. If any reduction is to be brought about, it must be by all those who favor it pulling together, and not working at cross purposes. I think then it behooves a body of students and scholars to coöperate as heartily as possible with those who work towards the same end, even

if they are working on a different theory or from a different motive. If the manufacturers who are now demanding some modification of the tariff have a false theory of international trade, I am not much concerned with that fact. If they are working for their own interest purely, rather than for the interest of the public, I should not worry over that. If I felt that they were really bringing a pressure to bear which would secure the desired end, I should be inclined to aid their efforts as far as possible. It has been suggested to me that this is a cynical attitude to take, but it does not seem so to me. Most important reforms are a result of the coöperation of interests which are not all based on the same intellectual or moral premises, and to refuse to work toward a common purpose save on an identical intellectual theory, or with the same moral purpose, seems to me too visionary an attitude to take toward the practical problems of public affairs.

7. If some modification of the tariff can be brought about by such coöperation, what plan of reduction shall be advocated? It might be said that the way to reduce is to reduce, and that the thing to advocate is a new tariff act with more moderate rates. This, however, it seems to me, misses the point of the importance of the producers' interests. To a considerable extent the men who are agitating in favor of revision are not so much concerned with the reduction of our tariff as the reduction in the tariff of other countries. It is not because they want to buy materials cheaper, but because they want to sell a large quantity of goods, that they are interested in this movement. If so, the mere reduction of duties at home by the ordinary method of a general tariff act would make a far less effective appeal to them. On the other hand, the adoption of a commercial policy by which restrictions in other markets

upon our goods would be removed, would unite the interests both of those who advocate revision for this purpose only, and those who advocate revision on general free trade principles for the consumers' interests. It is a strange thing that in this country reciprocity has frequently been looked upon as part of the free trader's theory and program, while really in every other country, and over a period of centuries, reciprocity treaties have been an essential part of the protectionist policy, and have been on the whole the scorn of the free trader. It will be recalled that the extreme free traders in England bitterly opposed the Cobden Treaty of 1860 because it was opposed to their fundamental principles. To negotiate and make mutual concessions was a part of protectionism, while the theory of free trade demanded one-sided abolition of duties by England alone. Furthermore, we have unfortunately in this country tended to substitute for real reciprocity a policy of retaliation. The McKinley bill was supposed to include a reciprocity clause, but it was a clause which simply empowered the President to add duties to articles then on the free list, and made no provision for reduction. If anything effective is to be secured, it must involve a change of attitude and a recognition that the only way to secure concessions is to make genuine concessions in turn.

It is not possible to go into any lengthy discussion here of the two rival methods, the double tariff and the treaty or conventional tariff. One important objection to the idea of the double tariff in its ordinary form arises from this very spirit of retaliation which is so prevalent among our law makers. The Republican declaration in favor of a double tariff probably means a minimum tariff based upon the present tariff law, and the maximum tariff of high rates to be used as a club

to force concessions from other countries. The question is whether we wish to use the big stick in commercial matters and irritate everybody with whom we have dealings, or whether it is wiser to adopt a policy of reasonableness in such matters and to recognize that we cannot expect to take everything and give nothing. For the securing of such a general policy, the scheme of commercial treaties seems to be more desirable, besides being much more flexible in meeting particular situations, than the double tariff system. Mr. Stone and others have discussed the advantages and disadvantages of the two methods fully and clearly, and the objections which have been brought against the commercial treaty method are of course of great weight. Unquestionably we could not adopt the German method outright. Treaties that become of the nature of new legislation regarding tariff rates, requiring the approval not only of the Senate but of the House as well, are practically impossible. We have certainly had experience enough to realize the impracticability of any satisfactory negotiations on such lines. I have wondered, however, if a combination of the two methods would not be possible by a general extension of the clause of the Dingley act, under which we now have agreements with several countries. Suppose an act could be passed authorizing the administration to enter into tariff agreements with other countries, under which duties might be reduced on any ware by the amount of 30 per cent in response to concessions from the other countries. The new scale of duties would already have been fixed by a statute and would not require further action by Congress; and yet all the advantages of adjusting the reductions to the problem of each particular country would be secured. Furthermore, there would not be multiplicity of rates, since in any case

there could not be more than two rates on the same commodity.

8. The American interpretation of the most favored nation clause would particularly favor the reduction of tariff by means of commercial treaties. If reduction had to be universal for the imports of all countries, it would be much more difficult probably to secure a reduction in any case. Where reduction can be made simply on the goods of a single country, nothing is lost in the matter of securing concessions abroad, while the opposition of home manufacturers would probably be much less; and, were a few such experiments tried, it is not unlikely that the evil results to the home manufacturer would prove so unimportant that further expansion of the policy would become more and more easy.

9. The question may be asked how far such a policy is likely to be successful in really securing concessions abroad, and how far these concessions are of any value. I think experience already has proved that very much could be gained in both these regards. Certainly our recent relations with Germany prove that it would be easy to secure concessions from other countries. The subject of our relations with Germany is not one, I think, on which the American with any generous feeling cares to dwell. But the fact that despite our aggressive attitude we have been able to secure the treaty rates on products of vital importance to our export trade in return for a concession of the most ridiculous inadequacy on our part, shows what might be accomplished by a broader policy. The German government was able to save its pride by means of the agreement under which we have reduced by 20 per cent the duty on four or five unimportant articles of import. It may be said that if we can get so much and give so little we should continue the policy, and that there

is no reason for advocating further reductions on the mere theory of reciprocity if we can get what we want without it. But it is not to be supposed that the nations of Europe are going to rest permanently contented with any such arrangement. Already our export trade is hampered in some important regards by the higher rates which it has to meet, and there is grave danger that if some concession is not made, such a country as Germany will face even the danger of a tariff war with us rather than to permanently give us the rates of the conventional tariff. It is not enough to say that other countries are much more dependent on us than we on them, and that we can hurt them more than they can hurt us. That may be true. It does not follow from that, however, that we should adopt the attitude of a certain prominent congressman, who always replied to every suggestion of an advance in foreign rates by advocating additional duties here. It may be possible that a bigger boy can lick a smaller boy, but it does not necessarily follow that it is to the advantage of the bigger boy to do so. The injury of the smaller boy can't be any direct benefit to him, and he may get some serious scratches himself. That we may be absolutely indifferent to rates put on American products abroad, seems to me a form of blindness of which almost nobody but a congressman is capable. The higher rates of the regular German tariff would seriously handicap the agricultural interests of this country in competition with countries enjoying treaty rates. A difference of 10 cents a bushel on wheat, to take a single illustration, is not to be looked on lightly. Similarly the growth of our exports of machinery, and dozens of other kinds of manufactures, may depend largely in the future on the character of the policy of other countries, and this policy may depend in turn on the extent to which a liberal policy of mutual concessions may be encouraged here.

The upshot of these suggestions is that for the practical object of tariff revision we should all get together; hence recognize and coöperate with the producing interests; hence suspend for the moment the propaganda in favor of tariff for revenue only based on the general free trade philosophy in favor of an agitation for reciprocity based on the gain to be derived by our exporting interests from concessions made abroad.

DUAL TARIFF SYSTEMS.

N. I. STONE.

The coming tariff revision which is at present claiming the undivided attention of the Ways and Means Committee, and is awaited by the business world with some degree of anxiety, has been undertaken with the object not only to adjust our rates of duty, but to bring our tariff policy in line with that of the principal foreign nations. Hence the demand for a dual tariff. Hence also the definite commitment of the national platform of the Republican party, of the Speaker of the House of Representatives, and of the Chairman of the Ways and Means Committee to a maximum and minimum tariff.

But while the country seems to have made up its mind on the subject of a dual tariff, there does not seem to be as much clearness as to the kind of a dual tariff we are to have. European experience in this regard becomes a legitimate object of interest to us, since it is principally those nations that we will have to deal with in our new tariff policy. Shall we have a conventional tariff system, fashioned after the German pattern, or shall we follow the French system of a general and minimum tariff (for some reason misnamed "maximum and minimum" in this country)? In the former case Congress would have but one tariff to enact, leaving to the Executive the negotiation of reciprocity treaties by which the rates adopted by Congress would be reduced in return for reciprocal concessions by foreign countries—a procedure not unknown in American tariff history. In the latter, Congress would adopt two sets of rates, leaving to the Executive the

application of the minimum rates to those foreign countries which in his opinion offer sufficient reciprocal concessions, but leaving no discretion to the Executive as to what the minimum rates shall be. Each system has its own advantages and its success depends on conditions, economic and political, prevailing in the country adopting it.

Of the two types of dual tariffs worked out by Europe, the conventional counts among its adherents Germany, Austria-Hungary, Russia, Italy, Switzerland, Belgium, Portugal, Roumania, Servia, Bulgaria, and last but not least Japan. The maximum and minimum is today in operation in France, Spain, Greece and Norway, the latter applying the system in a modified form which will be described later.

It will thus be seen that the conventional system has a larger number of adherents among the nations of the world than the maximum and minimum. Moreover, the latter is losing ground both as regards the countries in which it is applied and as to the manner of its application. Russia, after finding herself embroiled in a tariff war owing to the rigidity of the maximum and minimum tariff, has abandoned it for the conventional system. Neither France nor Spain has been able to escape tariff wars for the same reason, and France, like Russia, was compelled to reduce her minimum tariff below the rates laid down by parliament in order to put an end to those wars. Greece has managed to steer clear of hostilities by profiting by the examples of the nations just mentioned, and conceding reductions of rates below those authorized in her minimum tariff. In other words, the fundamental principle underlying the maximum and minimum system, that of autonomous determination of the minimum rates

by the legislative body, had to be abandoned in most cases by the nations which have adopted it. Norway alone has furnished a conspicuous exception among the latter, her success being due to the fact that her minimum tariff is so low that no foreign nation could possibly find fault with it. Moreover, Norway, unlike France and Spain, does not negotiate any tariff treaties and does not ask for any special concessions other than that her goods be admitted at the lowest rates applicable to other nations. In return she uniformly applies her minimum tariff to all, reserving the maximum for countries which might discriminate against her. The case of Norway has a particular interest for us, as will appear when we come to discuss our most favored nation policy.

So much for the working of the so-called maximum and minimum tariff. Now, let us consider the conventional. The legislative body adopts a single tariff and authorizes the executive to negotiate treaties with foreign nations, by which reductions from the rates adopted by parliament are granted in return for reciprocal concessions by foreign countries. As each nation naturally tries to secure concessions on the products in which it is particularly interested, and as not all of them are equally aggressive or successful in obtaining concessions, the minimum or conventional rates granted to the various nations by one country are found to differ so much that, were each set of duties to be applied to the products of the respective nations, the country would have as many tariffs as there were treaties negotiated by it. Such complexity and confusion is prevented by the application of the most favored nation principle interpreted in the broad liberal spirit evolved by European practice.

The conclusion of a number of reciprocal treaties or conventions results, therefore, in the formation of a single

conventional tariff consisting of the lowest rates granted in any of those treaties and applied uniformly to all foreign countries entitled to favored nation treatment.

Time limitation will preclude detailed consideration of the merits of each system, which can only be summed up briefly.

Granting that the object of a dual tariff is to secure for the domestic products as high protective rates as possible within the limits laid down by the legislature, while forcing the tariff gates of the nation you negotiate with as far ajar as you can, the conventional tariff system has certain advantages which are responsible for its growing popularity among the principal nations of the world. With no minimum rates fixed in advance, there is more room for bargaining on either side and for coming to a mutually satisfactory agreement by a series of give and take steps. At the same time each side feels it has a strategic advantage in not being obliged to disclose all of its cards at the outset. But whatever weight one may attach to considerations of elasticity and strategy, which are more apparent to the diplomat than the people at large, there is a very important economic consideration which so largely accounts for the popularity of the conventional system, and that is the stability it ensures the business world. Nearly all of the German treaties have been concluded for a period of twelve years. This means that during that period the German business man is absolutely certain that he is safe from unpleasant surprises in the way of sudden tariff changes affecting either his raw materials or finished products at home or in the countries with which reciprocity treaties have been concluded. Under those conditions there is greater disposition to make large investments in plants which can yield profitable returns only over a long series of years.

Under the French system, which jealously guards the principle of autonomy in determining minimum rates and of freedom to change them at will with a view solely to national needs, the minimum rates are not as a rule fixed in the treaties beyond the possibility of change, the only guarantee given to the contracting countries being that they are to have the benefit of the minimum rates, whatever they may be. Since the enactment of the French general and minimum tariff of 1892, which is still in force, there have been no less than 348 modifications of tariff rates.¹ During the corresponding period there were practically no changes in the German tariff aside, of course, from the great tariff revision which took place in 1906. The French attach more value to their freedom to change rates at will; the Germans and most of the other European nations seem to be willing to forego this right for the stability in business conditions which the binding of rates by treaty secures to them. They also bear in mind that reserving the right to alter rates implies like privileges for other nations which if exercised by all would render nugatory all reciprocity treaties and defeat the very object for which they are concluded.

But in considering the adaptability of the system to the United States we must not lose sight of the marked constitutional differences which affect legislation here and in European countries. In Europe the executive branch of the government participates to a large extent in the work of legislation. In Germany where conventional tariff making has been worked out to a greater degree of perfection than elsewhere, there is a kind of business parliament, or semi-official body composed of the representatives of the leading industrial, commercial, and agricul-

¹ "Politique Douanière et Prosperité Industrielle", par Germain Paturel, in the fortnightly *L'Expansion Commerciale*, Nov. 16, 1908, p. 675.

tural bodies, recognized by the government and shaping the tariff from its incipient stages until it reaches parliament in the shape of a perfected bill, where it is introduced by the government itself. The rates are purposely fixed higher than is thought either necessary or desirable from the protectionist standpoint, with the view of being bargained off for reciprocal concessions from foreign countries. The cabinet ministers being at the same time the most influential members of parliament, the legislative branch in European countries has a more live appreciation of the executive service, with the result that the departments have at their disposal the services of well trained experts, practically all university graduates, men of a type that are not attracted to the same extent to departmental work in Washington. After the bill has been enacted, a commission is appointed for the negotiation of reciprocity treaties composed of the government experts, some chosen for their special knowledge of the conditions of the country with which a reciprocal treaty is to be negotiated, others for their mastery of the legal questions involved, still others for their expert knowledge of the tariffs of either country, etc. To cite an instance: in the negotiations for the commercial agreement now in force between Germany and the United States, the former was represented by ten experts from the following government departments; the commercial, political and consular divisions of the Foreign Office; the Imperial Treasury Department; the Department of Commerce in the Ministry of the Interior; the Prussian Ministries of Finance, of Commerce, and of Agriculture.

Before taking up negotiations with the representatives of a foreign power, the commission of government experts meets the semi-official commission of business men

which was mentioned before, from which it learns the views and wishes of the business community and receives its final instructions from the government, which, it must not be forgotten, consists of the leading members of the dominant party or parties in parliament. The result of such a combination is that the government has no difficulty in getting the treaty, negotiated on these lines, ratified by parliament.

In the United States this elaborate machinery is not only absent, but for constitutional and other reasons could not be built up. Furthermore, tariff revision in the United States is usually the result of public agitation which can be satisfied only in one way, namely, by the enactment of rates thought just or wise. If Congress were to adopt a single tariff on the German plan, it would have the alternative of enacting rates avowedly higher than those thought necessary by the people and thus violating its ante-election pledges, or of fixing the rates at a point from which no concessions could be made by the executive in reciprocal treaties with any chance of their being ratified by Congress. After the treaties reached Congress there would be a natural disposition to view with a jealous eye the many changes wrought by executive action in the rates since adopted. Added to these difficulties would be those of a purely constitutional character. In Europe a simple majority of votes in parliament in favor of a treaty is sufficient to ratify it. In the United States a reciprocity treaty would require in the first instance action by both branches of Congress, since only the House is vested with authority to initiate legislation affecting revenue; and in the second place would require a majority of not less than two-thirds of the votes in the Senate to be ratified. Under these con-

ditions it would be quite easy for a determined minority to defeat a reciprocity treaty. What these difficulties mean is attested by past experience. In the entire history of the German Empire, during which numerous commercial treaties have been negotiated, there is not one case on record of a rejected treaty. In the United States not a single treaty was ratified by the Congress which authorized their recognition under section 4 of the Dingley act, and other reciprocity treaties negotiated have failed of ratification.

Past experience and considerations of mere expediency seem to point, therefore, to the maximum and minimum tariff as a more practical and safer policy for this country to follow. With both the maximum and minimum rates adopted by Congress, in the first instance there would be no necessity of submitting the treaties to the House. In the Senate, too, less opposition would be likely to assert itself, for the same reason. Moreover, if the precedent established in section 3 of the McKinley and Dingley acts were to be followed in shaping our new tariff policy, it would be possible to do away with the ratification of reciprocal agreements by the Senate without the surrender on the part of Congress of its prerogative of fixing tariff rates. With the exception of Cuba, practically all the tariff benefits which the United States enjoys today in foreign countries are due to the reciprocal agreements concluded by the executive without ratification by the Senate, by virtue of the authority vested in him by section 3 of the tariff act and on the basis of reductions of duty on the extremely limited number of articles comprising wines, liquors, paintings, and statuary. Here again past experience points the way to still greater achievements when Congress will substitute a large list of minimum rates for the few sanctioned so far.

Most Favored Nation Treatment.

No consideration of the dual tariff system can be complete without a reference, at least, to the most favored nation principle. As has been pointed out, the most favored nation clause, as interpreted and applied by European nations, forms part and parcel of their conventional tariff system. Briefly stated, it implies the immediate, unconditional and gratuitous extension to all countries entitled to most favored nation treatment of every reduction in rates of duty granted by one country to another, whether by treaty, legislative enactment, or in any other manner. Today the United States stands out as a conspicuous exception among the great nations of the world in the interpretation of one of the most important principles of international law. With but few exceptions, the government of the United States has clung to the original and unique construction of the most favored nation clause in our treaties with foreign countries, under which concessions granted to one nation in return for reciprocal advantages are not extended to most favored nations except for similar returns.

The application of this principle in connection with the adoption of a comprehensive system of reciprocity, such as has never been attempted in the history of this country, would bring in its train many consequences, among which two claim present attention.

In the first place it would make our tariff system so complex that instead of a dual tariff we might have as many tariffs as there were treaties in force. If nation A obtained a reduction of duty of say 10 per cent upon silk goods, and nation B in a treaty subsequently negotiated managed, by means of concessions more valuable to us, to secure a reduction of 20 per cent of the same duty, we should in the first place have three tariffs on

silk: the general tariff adopted by Congress, the tariff applicable to nation A, and that applicable to nation B. With the same principle applied to our treaties with all other nations and all the other products which might be covered by the treaties, there would be a sufficient assortment of rates to please the taste of the most fastidious lover of variety.

The second consequence to be considered is that no foreign nation would care to negotiate a treaty whose advantages might be made nugatory or worse by greater advantages subsequently granted to a rival nation. The only way in which it could secure the additional concessions under our construction of the most favored nation principle would be by negotiating a supplemental treaty based on new concessions which it might not be able to grant after it had exhausted the list of concessions in the first treaty. The system would be fraught with possibilities of constant surprises and resultant disturbances unsettling business conditions throughout the world. The only way out of that impossible situation under the conventional tariff system would lie in the adoption of the European interpretation of the most favored nation clause.

As a matter of fact, we were obliged to make that departure in the first experience we had with the dual tariff. The unratified treaty between the United States and France negotiated by Mr. Kasson in 1899 on the basis of section 4 of the Dingley act which provides for minimum rates not to exceed 20 per cent reduction from the regular duties, stipulated that should the United States grant reductions of duty to another country below those granted to France on the articles covered by that treaty, such lower rates were to be "applied of right and without delay to the like articles" of France. The same reserva-

tion was made with regard to sparkling wines and woolen goods, neither of which was given special rates under the treaty.²

The provision of Article III just cited points the way the United States will probably enter upon should the dual tariff with the concomitant system of reciprocal treaties become the settled policy of the country. The principle, if uniformly adopted in all of our reciprocity treaties, would have the advantage of removing the one serious obstacle to broad, comprehensive reciprocity treaties with the United States from the European point of view, while securing to American products the benefits of the broad European interpretation of the most favored nation principle, which is now denied to us in some countries as a sequence of our own attitude on the subject.

There is another way of making the minimum rates uniform to all reciprocating nations, which would not require the least departure from our most favored nation policy. It is the policy of Norway alluded to in this paper, and it seems to find favor in congressional circles. Instead of making the maximum tariff the basic or general tariff from which reductions would be traded off for reciprocal concessions, the congressional idea is to make the minimum tariff generally applicable to all nations granting their minimum rates to us, and keeping the maximum tariff in reserve as a retaliatory measure for countries which make any tariff discriminations against American products. This system has all the advantages of simplicity, as it would reduce negotiations with foreign nations to a minimum and would do away with the necessity of formal treaties and the reopening of the dis-

²Art. III of the Convention between the United States and France. Senate Document No. 22, 56th Congress, 1st Session. December 6, 1899.

cussion of the troublesome and vexing most favored nation problem.

However, there are two serious objections to it. The first and important objection is from the point of view of American interests. The automatic application of the minimum rates to countries likewise applying their minimum rates to the United States, while effectively protecting American products against discrimination, would preclude the possibility of negotiation for special concessions on American products. Yet, with the skillful art of tariff making, several European nations have contrived to hit distinctly American products with high rates of duty for the very purpose of forcing concessions from this country. As no other nation but ourselves is interested in those products, there are no minimum or conventional rates in force to cover them, and none can be secured except by negotiation of reciprocity treaties looking to that end.

The second objection is from the foreign point of view, but is just as vital, since it takes two parties to make a dual tariff work successfully. It lies in the danger of our minimum rates being fixed too high to be considered as a reciprocal return by foreign nations for their own minimum tariff. In the Norwegian tariff this has not been the case, the rates being very low. Failure on the part of any of the great nations to accept our minimum tariff in return for theirs, would, under the system proposed, leave no alternative to the executive but the application of the maximum tariff with consequent tariff reprisals on either side, such as we have seen in the case of France and Spain.

The choice seems to be, therefore, in favor of a maximum and minimum tariff on the lines laid down in section 3 of the Dingley act, but with the minimum rates to cover

the greater part of the tariff instead of the few articles of wines, spirits, and paintings to which that section now applies. This section gives the executive the power to negotiate reciprocity treaties on the basis of the minimum rates authorized by Congress, without requiring the submission of the treaties to the Senate for ratification. The system combines the advantages of securing to the legislative branch complete control over the tariff rates, both maximum and minimum; insuring flexibility in leaving to the discretion of the executive the determination of what is an equivalent concession on the other side, and inspiring confidence in the foreign nations that the treaty once negotiated will be actually put into force. Finally, it has the advantage of having stood the test of practical experience, since, in spite of its circumscribed scope it has been the instrument for securing to the United States the enjoyment of minimum rates in most of the countries of Europe.

TARIFF REVISION AND FOREIGN MARKETS.

SIMON LITMAN.

This paper deals primarily with the relation between our tariff and the foreign markets, incidentally considering our command of raw materials and the position of the domestic consumer. Under "foreign markets" I understand not only markets for the sale, but also markets for the purchase of goods, and under domestic consumer not only the final consumer, but also the consumer of raw and half finished commodities.

Statistics attest the remarkable growth of our foreign commerce; but a close study of our exports and imports reveals the fact that the development, however phenomenal, has been but incidental to the marvelous expansion of our domestic trade and to the exploitation of our mines, forests, and fields. Our exports consist mostly of breadstuffs and foodstuffs, either in crude condition or partly manufactured, and of raw and semi-finished materials of commerce; our imports, whether intended for further use in manufactures, or whether ready for immediate consumption, are largely goods to supply the needs and the wants of the well-to-do and the rich. This commerce grew up notwithstanding the many objectionable features of our present tariff, and without any serious effort to further it on the part of the people in the United States. The empty storehouses of Europe were compelled to replenish themselves from our wheat fields, and their mills and factories sought the products of our cotton plantations and our copper mines because of the large profits on their original investments.

The United States, the greatest manufacturing nation

in the world, supplies at present but a small fraction (not more than $12\frac{1}{2}$ per cent) of manufactures entering into international trade. Taking the last fiscal year (1908), we find that out of a total value of exports equal to \$1,834,786,000, we exported but \$488, 458,000 of manufactured articles. This output of manufactures abroad represented largely the overflow of goods intended for home consumption; they were offered in the foreign markets at low prices because of the lack of demand at home.

Such conditions cannot last. Our export of breadstuffs and foodstuffs will necessarily decrease because of the rapidly growing population in the Union, and because of the fact that the area available for tillage, barring the land that is being opened by artificial irrigation, has been occupied. On the other hand, our industrial development has assumed such proportions that a part of the capital, the energy, and the laboring forces of the land must be directed toward production of goods for export.

We can occasionally dump the foreign markets and justify it on the ground that it relieves the pressure of overproduction at home. But dumping cannot be made a permanent feature of our industry and commerce. Foreign countries will not permit dumping because of its effect upon their national industries, and our own people will not submit to it without protest. One of the essential features of dumping is sales abroad at lower prices than at home; however patient and uncomplaining our consumers are, they will not tolerate indefinitely such discrimination in favor of foreigners.

The paramount question arises, whether or not we have manufacturers who can produce at such cost as to be able to sell at home and abroad as cheaply as their foreign competitors. If not, our industrial development will receive a severe check. We can protect our manufacturers at

home, but unless other reliable and expanding markets, in addition to our own, are found for the increasing output of our mills and factories, we shall every year be in greater danger of overproduction and stagnation, and periods of depression and readjustment will be more frequent and more lasting. It is true that our domestic market, considering the consuming capacity of our population, is the largest in the world. But our productive activity in many directions has outgrown this market. What we need is a solid and broad foundation which the command over the world's markets alone can give us.

Are we to believe those who clamor that high protective duties on every commodity produced in this country are a necessary requisite of our industrial progress, nay of our very existence as a prosperous nation? If we do, then we may as well give up our search for foreign markets; we may throw into the waste-basket all the advice of our consuls and other representatives of the Department of Commerce and Labor, who try to impress us with the necessity for proper packing and advertising, for studying the peculiar needs and tastes of the foreigners, etc. Of what value is this advice, if it is true, that the English and the German manufacturers produce with less cost than we? How can we compete with them in their own and in the neutral markets of Asia, Africa, and South America, if we need the high wall of protection at home?

Is it not an insult to the intelligence of the American consumer, this printing of special, of daily, and of monthly reports, telling manufacturers how to gain foreign trade, when at the same time it is contended that without high protective duties our industries are doomed to ruin or the wages of our laborers threatened with such sharp reductions as to degrade the standard of living?

What this standard of living is in many an industrial community in the United States has been brought out so forcefully in our discussion of "Modern Industry and Family Life", that I need not dwell on the subject.

Fortunately for the country, many of the existing duties can be reduced and even removed without imperilling the position of our laborers and of our capitalists. A certain dislocation of industry will necessarily take place, since the larger the amount of commodities exported and the greater their value the greater also will be the value of imports; but with a tariff properly constructed, a tariff which is not an outcome of theories, suppositions, likes, dislikes, interests of individual manufacturers and congressmen, a tariff which is based upon a careful study of facts and a grasp of conditions, this dislocation will be easily adjusted. This dislocation is certainly not to be apprehended as much as the condition into which we are drifting with our single, straight-out, highly protective tariff, which, it is true, shuts out the goods of other countries, but which at the same time shuts in our own products.

Many people are willing to concede that because of our "surplus" we need access to foreign markets, and they advocate the extension of our foreign trade; but when it is brought home to them that selling without buying is impossible, and where it is possible is undesirable, they raise objections to the surrender of even the smallest part of the domestic market. The domestic consumer appears to be a precious heirloom of our manufacturers.

Considering some of the changes which should be introduced into our tariff, we may say that they should be of such nature as to facilitate the export of highly finished articles and to permit the import of raw materials and of all commodities for which we are compelled to pay

monopoly prices. The opportunity to import freely raw materials will be of great value to us for many reasons. It will enable us to draw upon the vast resources of eastern Asia, Central and South America, and Canada, retarding the time of the exhaustion of our own natural resources and decreasing the cost of materials used in factories. As the matter stands at present, it seems as if our government, by placing duties on iron ore, coal, lumber, etc., encourages their ruthless exploitation. Mr. Pierce, in his book *The Tariff and the Trusts*, says justly: "The Dominion of Canada has an unbroken stretch of white pine and spruce extending from the east of Labrador to the Pacific Ocean. But our great statesmen stimulate the destruction of the American forests by protection of lumber and wood-pulp and hasten the day when the last white pine tree shall be cut and the last spruce tree be ground into pulp."

And the Canadian timber is not the only timber we could import but for the "protective" duty. Mexico, Central American and South American Republics have abundant supplies. Mr. Pierce also most wisely calls our attention to another fact. While the industries of New England are languishing because of lack of sufficient deposits of iron and coal, close by in Nova Scotia and other Canadian provinces are vast supplies of both iron and coal easily accessible from the seashore.

Why do we exclude these materials? According to the findings of the national conservation commission, the known supplies of high-grade ores in the United States, at the present rate of consumption, cannot be expected to last more than thirty or forty years, and our available and easily accessible supplies of coal will be so depleted as to approach exhaustion before the middle of the next century.

There may be no cause for alarm, but that the question is of more than academic interest is manifest from the declaration of Mr. Gary, chairman of the directors of the United States Steel Corporation, before the House ways and means committee. In his testimony, he said that the cost of producing pig iron has been increasing all the time, because of the necessity to resort to poorer and poorer qualities of ores. Now, if this is true, why not reduce our duties on iron ore and other raw materials? These reductions may be used to further our commercial interests with the neighbors to the north and to the south of us.

A freer importation of raw materials will also bring to many of our manufacturers of finished articles a greater variety of commodities to choose from. At present, they must necessarily use domestic products and pay high prices for them. I refer particularly to those manufacturers who are not in the combines, who do not belong in the class of large self-contained concerns and who consequently have no control over the sources of supply of raw materials.

That the interests of these dependent manufacturers are hindered has been admitted, in the case of the iron and steel industry, by Mr. Gary, who stated that the United States Steel Corporation can produce iron and steel cheaper than most of its competitors because the corporation has a decided advantage in the quality and quantity of ore at its disposal; other advantages being the cheapness of equipment and the control over the lines of transportation.

Whether the reduction of duties on raw and semi-manufactured materials of commerce alone will benefit the final consumer is not within the domain of this paper to discuss; we may state that should the control over the

elaborative processes be in the hands of a monopoly, the sole beneficiary of reduced duties will be the monopolist manufacturer. However, the manufacturing of finished articles with an open market for obtaining supplies of raw materials does not lend itself easily to monopoly, and there is hardly a doubt that the reduction of duties on raw materials will lead to a reduction of prices on finished commodities.

One of the greatest drawbacks of our existing tariff is the uncertainty of many of its provisions, which frequently leave the importer in darkness as to the amount of duties to be paid. If the intention of our legislators was to check the development of our foreign trade relations far in excess of even the highest imaginable duties, then they certainly deserve all the praise that one can give them for having attained their object. Nothing hampers modern commerce as much as uncertainty. Our tariff classification based upon the manufacturing achievements of a generation ago, the many decisions of our appraisers and our courts (exceeding 300,000), the bewilderingly incongruous array of commodities gathered under one rate of duty, commodities that have nothing in common with each other, except the fact that they came under the vigilant eyes of our customs house appraisers, all tend to confusion.

We may ask with Senator Beveridge,¹—"Is there any logic in classing buttons and stoves together? Is there any connection between carriages and dress trimmings? Why should cannon for war and crosses for churches be put in the same class?" Yet all these and many others are in the same classification and pay the same duty.

¹ See his article on "Permanent Tariff Commission" in the *Annals of the American Academy of Polit. and Soc. Science* for Sept., 1908.

Mr. Harold Bolce, in his book on *The New Internationalism*, wonders why a mare's colt is classified as household furniture, soy beans of Japan as sweetmeats, and frogs' legs as poultry. In the criticism of the present classification I should draw the line at frogs' legs; in my opinion, the appraiser who placed frogs' legs in the same class as poultry knew his business. He has shown us the way to a proper, scientific, up-to-date, business-like classification, a classification which considers rather the use to which the article is subjected than the material out of which it is made or the kingdom (vegetable, animal, or mineral) to which it belongs.

A scientific tariff classification which would do away with the necessity for resorting to guesses because of the ambiguity of its statements or because of the great latitude that it leaves for its interpretation, a classification which would decrease the number of contests between the government and the importers, costing both parties large sums of money and creating a great deal of bad blood, a correct classification, which would provide carefully drawn schedules, clearly differentiating between various commodities and permitting an accurate affixing of duty to each commodity, such a classification would help our foreign trade immensely. At present, our import trade is confused and uncertain, and an uncertain import trade has necessarily a disturbing effect upon exports.

The drafting of a proper classification requires time, intelligence, and knowledge; it calls for investigations by experts, for a minute study of every phase of every industry that enters into international trade, for a searching inquiry into the bearings of our own and of the tariffs of other countries upon production and distribution of commodities.

A proper classification will permit us to change most of our *ad valorem* and compound duties for specific ones, without subjecting coarser and cheaper grades to a proportionally higher taxation than finer, more expensive articles, thus doing away with the only valid objection against specific duties. The change will bring greater simplicity into our relation with importers and greater speed into our handling of goods at the frontier; it will put a stop to the temptation of undervaluing merchandise and will make unnecessary a number of "unjustifiable practices that have grown up in our customs administration, notably the practice of determining values of imports upon detective reports, never disclosed to persons whose interests are affected."²

The temporary agreement between the United States and Germany, the provisions of which have since been extended to some other countries, introduced better methods in our dealings with importers. Our customs regulations have been so changed as to discontinue the system of obtaining secret statements from informers, discharged employees, and business rivals. But this agreement defines "market value" of goods sold in the home market only in limited quantities somewhat too liberally, declaring, as it does, that the export price is the market value of such goods. Although not in sympathy with either the principles or the methods of the American Protective Tariff League, I must admit that their organ, *American Economist*, has been somewhat justified in its criticism of the agreement. There is more likelihood for undervaluation under this agreement than under the former provisions of the Customs Administration act.

It seems to me that the time is ripe to do away with our complicated and expensive machinery of customs

² See the message of the President to Congress sent on December 3, 1907.

administration. This machinery has been called into existence chiefly because of improper classification in our tariff and because of *ad valorem* duties attached to uncertain and indefinite schedules. The adoption of specific duties under a definite, scientific, and business-like tariff would solve many of our customs administrative problems and would lead to a simplification of the service.

The Vienna Industrial Club in its denunciation of our tariff is not so far away from the truth when it states that we "have scraped together a tariff made up of a lot of separate decrees modeled with the view to prevent importation." Undoubtedly, in many instances the real legislators and fixers of duties in our tariff were not the congressmen who passed the law and who are so jealous of their legislative prerogatives, but the appraisers and the circuit courts who made decisions.

As to the form of the tariff to be adopted, it is, in my opinion, not so important, whether we have a single or a double set of duties, as whether we have an honest reduction of these duties or not. A maximum and minimum tariff with excessive and exorbitant rates in the minimum schedules, and retaliatory prohibitive in the maximum, is a much more unsatisfactory device for the extension of foreign trade than a single tariff based upon the principle of honest protection where protection is needed for the good of the country and upon the principle of freedom of intercourse where this freedom of intercourse may bring the greatest amount of benefit to the greatest number of people.

The advantages and disadvantages of the single and dual tariff systems have been brought out so clearly in the preceding papers that I need not consider the subject here. I may add only, that there is, to my mind, no greater inherent value in a dual than in a single tariff. If the

adoption of the first is being urged, it is simply because of the fact that most of our commercial friends and rivals have adopted the dual tariff system and regulate their relations accordingly; it is a matter of expediency for us to adopt the same system.

In conclusion, I should say that, omitting the moral, the social, and the political aspects of the problem, our present agitation for tariff revision may be traced to two causes: (1) high monopolistic prices demanded of our consumers and the consequently natural desire to buy goods from abroad; (2) necessity for expanding our foreign trade, particularly in the direction of the sale of finished commodities.

We have heard very little from our consumer, especially from the great mass of our population which lives from hand to mouth and whose purchasing power is curtailed because of the high prices charged for the necessities of life; on the other hand, we have heard a great deal from individual manufacturers and from our manufacturing and commercial organizations, which are looking for foreign buyers because they cannot sell at home all they produce. The interests of both parties are weighty, and upon their proper adjustment depends our future economic greatness. Both interests call for the revision of the tariff, and both must be considered when shaping our tariff policy. We can solve the problem of monopolistic prices by reducing or removing our duties, and the problem of the foreign markets by entering into reciprocal agreements with other countries. A mere reduction or removal of duties would mean an influx of foreign goods into the United States with perhaps no corresponding outlet for our commodities abroad; it may benefit the consumer but its immediate effect upon many producers might be disastrous. A conclusion of reciprocity treaties

alone may benefit certain manufacturing interests without bringing any relief to consumers; in fact, we may conceive a policy of commercial agreements which will leave our consumers in a worse position than they are in at present, a policy which will increase the manufacturers' command over raw materials and generators of power, which will facilitate their sales abroad and which will make them even greater masters of the situation than they are now. Being assured of foreign markets, they will raise the price at home, and the consumers will have either to pay this price or to watch with justifiable indignation cargo-laden ships leaving our ports, taking away the goods that might have brought comfort and happiness into their own homes.

Will our legislators be able to solve the problems confronting them? Admitting even that the majority of them can raise themselves above sectional interests and party politics and can face the issue squarely, have they a sufficient amount of knowledge required for the work?

TARIFF REVISION—DISCUSSION.

C. W. MIXTER: In the limited time at my disposal I shall confine myself to the nine "statements", so-called, of Professor Emery's paper.

It appears to me that Professor Emery's first "statement" is somewhat confused. Indeed, it would seem that in his desire to be very practical and tolerant he has got himself into the position of facing two ways. Which is it? Is the tariff as a whole in its industrial aspects a minor prosperity promoter, or "a minor disease"? The main idea in this first statement is that the economic importance of the tariff at all events has been greatly exaggerated on both sides; and that its chief significance is moral. With this idea in its entirety I am in hearty agreement: I believe it cannot be overemphasized.

The main idea of the second "statement" is,—deal gently and reasonably with an established system of things; do not drive a reform rough shod through institutions; do not run amuck; in dealing with the tariff shun a doctrinaire spirit as you would the devil. This position also receives my hearty endorsement. By our doctrinaire tactics, our blundering attitude of aggression, our exaggerations of the gains to be derived from free trade, we have all along been playing into the hands of the opposition. Our mistaken policy has helped to get millions of producers throughout the country into a state of needless blue funk.

The introductory position of Professor Emery's third "statement" is, that the tariff question resolves itself into particulars, and that we are under the necessity of study-

ing the effects of protection in each individual case. In elaborating this idea, Professor Emery does not follow his own program strictly, but outlines a study by certain broad classes. Upon the basis of his brief survey of these classes his position in conclusion is, that we should repeal all duties not needed for protection and should retain all duties for the present that *are* needed for protection. As this last idea was expressed, in other words, at the end of his paper,—we should “suspend for the moment the propaganda in favor of tariff for revenue only, based on the general free trade philosophy.”

I give my endorsement unreservedly to this position in both its aspects. I believe it would be good policy for some years to come to attack no duty (except on raw materials) that really protects. Indeed, if it is really demonstrated that we have a greater cost of production in any industry than obtains abroad, I personally should counsel that we do not higggle very much as to the amount of the duty, but let the protectionists make it what they please. But we should insist on free raw materials and the enlargement of the free list generally by placing on it every article with respect to which our costs are less than abroad. Let us direct our efforts to repealing that great mass of nominally protective duties with which the politicians play politics and get votes. The tariff system as a whole, with all its huge moral evil, is kept alive paradoxically not by the live duties but by the dead ones. Repeal every duty which is not needed to protect; let the people see that in consequence the sky does not fall; let it be made plain that the tariff accomplishes no *general* economic result under present-day conditions, but only a set of *particular* results—the fostering of a few barnacle industries—and the victory for liberality in trade policy will be won.

In his fourth "statement" Professor Emery sets forth the important truth that the argument for a liberal trade policy based on the consumers' interests has been, and must continue to be, a failure. There are other reasons for this besides those he had time to mention. For one thing, we have blundered sadly in not taking sufficient account of the economic principles governing the use of articles of luxury. Again, we have overlooked that very frequently the consumption of wealth in general presents itself as anything but an edifying spectacle—as anything but a worthy goal of industrial effort. The industrial efforts themselves are the worthy, character-building side of economic life. For one reason and another, it is production, not consumption, that commands the interest, the respect, and the enthusiasm of mankind. This being so, one can imagine how it strikes some protected manufacturer when you propose to overthrow the results of the labor of years, in the interest of the consumer.

The chief feature of the fifth and sixth "statements" is that the vital, promising movement toward a more liberal trade policy everywhere comes from the side of the organized producers and is based upon the producers' interests. And accordingly it is maintained that we should work in hearty coöperation with producers of liberal tendencies, even though their economic theory may be only half right and they are actuated by motives of self-interest solely. I endorse this position as a general proposition fully. I believe Professor Emery has no occasion in this connection to defend himself from the charge of being "cynical".

I believe, however, that he has overrated the force of the natural, automatic drift toward a liberal trade policy proceeding from producers' interests—proceeding from the "change of heart" of producers—practical men for

the most part, who view these things as parts, not as wholes, and who will fall out with each other again and again. There is no time to go into this matter fully. For one thing, there is the politicians' interests to be reckoned with. All over this country thousands of political leaders great and small have a repertoire of high tariff speeches learned by heart; they know by experience that the tariff is an unsurpassed "vote-getter"; they fear that "Othello's occupation's gone" the day the country settles down to a liberal trade policy and the tariff drops out of politics. Even if by reason of ambition for increased exports, and the like, the protectionist producers should all swing into line for a liberal trade policy, the battle would have to be fought all over again with the politicians.

The leading idea of Professor Emery's last three "statements", seven, eight and nine, is that inasmuch as we ought to coöperate with the producers, instead of antagonizing them as heretofore, let us take hold with them and work for the chief thing they want—reciprocity.

Personally I take no stock in reciprocity. I have not time to say why. I merely state that in my opinion in *that* way disappointment lies for *all* concerned. The less economists have to do with reciprocity, the more their reputations will be enhanced ten or twenty years from now. "No people ever yet grew rich by policies"—especially by overrefined, subtly-balanced policies.

And now to conclude. I believe, as does Professor Emery, that we should establish more cordial relations with producers, through getting into a sympathetic understanding of their aims and objects and point of view. We should talk with them hereafter a congenial sort of economics—the economics of production. But this means, for their good and ours and for the public good, to have

done with talking the economics of prices and deals and dickers—the “eidolons of the market place” that blind men’s eyes. It means concerning ourselves hereafter with *realities*—the forces of production. It means standing up stoutly oftentimes against the producer and showing him how he is defeating himself *as a producer*. We are not to plunge with him into new and more impenetrable mental fogs. It is one thing to get into a sympathetic understanding of another man’s point of view: it is another thing to adopt his ideas outright. We should be careful not to overdo being practical. Said Matthew Arnold in his essay on “The Function of Criticism at the Present Day”: “It is only by remaining collected, and refusing to lend himself to the point of view of the practical man, that the critic (the man of science) can do the practical man any service.”

J. W. CROOK: I am in general sympathy with Mr. Emery’s practical attitude. We want economic results and not the triumph of some pet theory. As long as the producers of wealth as a body think they need a high tariff, an appeal to the consumers’ interest gets little attention. Now that the manufacturing interest wants a change, we should join hands with them. Nor should we hesitate because their reasons for reduction are not ours. It seems fairly plain that when the Manufacturers’ Association organizes to promote the cause of tariff reduction, its predominant motive is the desire to either preserve foreign markets or to enlarge them. In recent years some foreign nations have been raising their tariffs. That interferes with “dumping” and threatens to seriously curtail international trade. American manufactures have grown strong in recent years and a wide foreign market is desired more than ever before. Such markets can be

obtained only by making concessions. To perfect machinery by means of which the tariff may be lowered is the first step in a policy of "invading" the markets of the world. This is a reasonable and proper motive. However, if we may judge by some of the literature supposed to represent the views of the Manufacturers' Association, the consumers have become the object of solicitude by manufacturers. It would be hard to find stronger expressions of the burdensome nature of the high tariff upon the general public than is to be found in the recent writings of influential officers of the association. It is doubtful whether this line of argument, however sound, will have any more potency now than it did when Mr. Cleveland wrote his strong message on the subject. A straightforward argument to show the necessity of lowering our tariff in order to obtain a freer access to foreign markets for American products would probably be more effective. As Mr. Emery says, the appeal to the consumer is bad psychology.

Mr. Stone has made clear the advantages of the conventional tariff as a means of arranging reciprocal tariffs. But he is equally clear that under our form of government and administration it is not a possible plan for us. Our list of unratified treaties is a disheartening one. It has meant more than treaties not made. It has been a source of international friction. A departure from a general policy of one tariff for all would seem to resolve itself into a maximum and a minimum tariff, with agreements by the executive made possible. This is reciprocity. The problem of reciprocity is not a simple one. While I do not wish to discuss it from a too theoretical standpoint, I am interested to inquire for a moment into the effect of such a policy upon both consumer and producer.

Taking the consumer first: in case an agreement is

made to admit at a lower rate only a part of finished goods imported, it is difficult to see how the consumer will benefit, at least to the full extent of the reduction. That part of the import which pays the higher rate will perform a function as to price analogous to that part of a product which is brought to market at greatest cost. Whether consumers will benefit, in case raw products should be admitted at a lower rate, will depend upon whether the further working up of the raw product is done under competition or under monopoly. If under competition, a lower cost of raw material is equivalent to a lower cost of production, which under normal circumstances would mean lower prices to the consumer of the finished product. If under monopoly, it would mean only such readjustment of selling prices as the change in the cost of raw material would lead the monopoly to adopt from self-interest. It appears then that the consumer would get the full benefit of lower rates only in case all or nearly all the imported product came in under the lower rate and if the further working up of the goods imported were done under competition. If we inquire into the effect of reciprocity rates upon producers, we shall find that under the European interpretation of the most favored nation clause brought out by Mr. Stone, America can receive no differential advantage since all other nations will be accorded as low rates as we are.

The advantage to the producer, then, is expected to flow from the building up of wider markets for American products. The whole question, however, should be carefully worked over by experts who have no interests at stake except to know the facts. Mr. Litman showed the complications of the schedules which can be scientifically framed only by men who are trained and who take time to know the technicalities of the industries affected. One of

the most difficult problems is that of the costs of production here and in countries with which we seek trade relations. But it is a problem of vital importance; one, however, that should take into account not only actual present costs but should note the differences of labor conditions. If we seek by tariff rates to equalize these differences we might properly discount an improvement in labor conditions. If costs of production here are less than in Europe on account of the fact that hours of labor here are longer, the tariff may not be employed to perpetuate such differences. These are questions that need expert investigation, such as congressional committees usually cannot perform even if they wanted to. When Germany undertakes to modify her tariff she makes up a board of experts. They give years to the study of home and foreign conditions, submit the schedules to the interests affected, and finally reach a scientifically made schedule which the business world is given time to adjust itself to. Our method so far shows a great contrast. We employ experts only to a limited extent. Our politicians have too much of a hand in it. Little time is taken. A few men are worked to death for a few weeks under the strain of trying to reconcile the claims of conflicting interests. Concessions are forced that should never be made. The question of the tariff is too important to be handled in this way. A method which should take the tariff entirely out of the hands of politicians, have its making based on a scientific knowledge of trade conditions, and be made for the general interest and not for special interests, must be found if some of the worst features of our tariff legislation are to be eliminated. The first step, in my opinion, should be a tariff commission.

U. G. WEATHERLY: With Professor Emery's idea that tariff policies are not necessarily the fundamental factors

in shaping economic development, I am in hearty agreement. It is rather as a steering oar and not as a driving oar that the tariff must be considered. A policy of readjustment which shall keep in view the learger trends of our national life is certainly in harmony with the sentiment of the whole country. Mr. D. M. Parry is no doubt correct in his recent statement that even in the middle West, where not over five per cent of the population are engaged in tariff industries, there is a general willingness to continue protection for such industries as need it. But along with this complacent assent to the protective policy there is an undercurrent of conviction that the nation should now definitely consider the question of the ends which it desires to reach, and that it should begin to use the tariff as an instrument to help establish proper social and economic standards rather than to foster special industries. In the last analysis commercial policies affect men as much as goods. The abiding justification of protection lies in whatever power it has to safeguard the standard of living which a state may fix upon as desirable. To limit or shut out foreign goods is not necessarily to accomplish this. Immigration may bring within the tariff wall in large numbers alien laborers who carry with them the status of the more backward communities from which they come and who do not become a stable part of the society which they enter. It is undeniable that at this time in America, despite high nominal wage scales, European rather than American standards persist among considerable portions of our labor force.

In so far as the tariff policy affects the trend of industrial development it may now become an important agent in helping to determine whether the United States shall become a distinctly industrial state, after the pattern of the older industrial nations, or whether it shall retain

something of its hereditary character of well-rounded economic life. Much the same alternative has confronted Germany, to the perplexity of her economists and statesmen. Professor Wagner, alarmed at the excessive industrialization of Germany, a few years ago sounded a note of alarm for her agricultural interests. "An adequate protection for agriculture", he declared, "higher than at present, would be in the general interest of the whole country, even if by this means the industrial development of the state and possibly also the growth of population should be, not entirely stopped, but certainly slackened, in the all-around interests of the workers and of the economic development of Germany. The maintenance of a capable agriculture means the maintenance of the German people now and for the future." Overindustrialization, carried to the extreme of exporting manufactures and importing food supplies, may as a policy be temporarily brilliant. In the long run, however, it must prove dangerous because both the markets for exports and the domestic food supply are restricted with every advance of industrialism. Agriculture of itself is less efficient in protecting its interests than is industry, by reason of its being less thoroughly integrated. It is therefore always in danger of being neglected until its decline shall have gone so far as to render the task of restoring it to vigor a doubly difficult one. The question of population also is involved in the problem of the equalization of industry and agriculture. Industrial growth purchased at the expense of the stability and proper distribution of population is uneconomic. Now American industrialization has proceeded too rapidly, and the sudden massing of unadjusted working groups in urban centers has brought about more than the usual confusion which appears when the workers are drawn together from within the same coun-

try, as in modern Germany. The fact that more than 700,000 recent immigrants have returned to Europe since the beginning of the depression of 1907 is not a wholesome symptom, but it serves to point out the need of an industrial policy that will conduce to greater social stability.

Another aspect of our economic life which demands at this time the formulation of a definite program is our commerce with tropical lands, and particularly with the Latin American countries. Whether a system of reciprocity treaties especially devised to meet the needs of our peculiar relations with those countries be feasible, or whether, as Mr. Stone concludes, the general and minimum principle should be adopted, the situation is one that requires a treatment somewhat different from that which our commercial relations with Europe call for. It is not merely that the balance of trade is against the United States in the exchange with several of the Latin American states. Both geographical proximity and complementary productive capacities render commerce with them the most natural and economic one. When Mr. Blaine's far-sighted plans were propounded twenty years ago it became evident that no such radical step as a Pan-American customs union was practicable, but it does not follow that some tariff arrangement is impossible which shall in commerce supplement the Monroe Doctrine in politics. Whatever scheme of revision is adopted must ultimately take account of these interests. The formulation of a policy correlating our commercial and political interests calls for the coöperation of trade experts and statesmen. If protection is, as Professor Patten has called it, "a consistent endeavor to keep society dynamic and progressive", the effective direction of commercial policy means the employment not only of skill in manipulating tariff schedules

but of large-minded foresight in grasping the commercial situation. This is but another way of saying that the tariff question should be taken out of politics and entrusted to a commission of experts.

CENTRAL BANK OF THE UNITED STATES.

P. M. WARBURG.

In dealing with the problem of a "Central Bank of the United States", one should properly discuss first the advantages and disadvantages of the central bank system in general, and then the particular problem of a central bank of the United States.

For the purpose of this discussion, however, I may take it as a matter of common agreement, that in the present state of our civilization, wherever circumstances permit of its establishment, the central bank system is the most suitable and efficient. When the millennium comes, when the reign of eternal peace is ushered in, and when competing armies and navies no longer exist, we may see a system which will centralize all the gold of all countries into one big international reserve or a system which can be operated without the use of any gold at all, as some theorists, like Professor Knapp, of Strasbourg, foresee. I, for one, do not believe that either we or our great-grandchildren shall have to discuss these possibilities as more than theoretical questions.

While we all hope that the arbitration movement will continue to grow and that wars may in the future become less and less frequent, the possibility of struggles among nations always remains. Hence nations will never consent entirely to abolish their armies and navies, and just as little as they will give up their reserves of powder and guns will they agree to give up their reserve of gold. This is important; for while within the confines of our own political boundaries our present money system acts

as a national clearing house,—crediting to each of us the net result of his work, and accomplishing this practically without the actual use of gold, by means of bank accounts or of checks to bearer, namely, bank notes,—still ulterior payments between nations, whenever all other means of settling the debit balance with a creditor nation have been exhausted, must be made in gold.

To meet the immense volume of demand obligations, which are, by their terms, payable in gold, there exists in actual gold under a modern banking system an amount equal to but a small fraction of the total amount of gold debts. This system is therefore safe only if the credit of the banks is so strong as to inspire a confident reliance that even if actual gold in large quantity is at one and the same time demanded from one or from several banks, the metal will not be needlessly and wastefully hoarded, the public and the banks themselves being confident that money so withdrawn will be redeposited, so long as there remain some institutions the credit of which cannot be shaken. Furthermore, the system must be so constituted that, in case of a demand for gold, each solvent bank will pay out the metal freely and boldly, recognizing this as the sole method of stopping an internal drain, and of preventing it from degenerating into a panic. In addition, the system must provide for a means of successfully combatting the export of gold, and of encouraging its import, when necessary, through the medium of the discount rate. This again presupposes the existence of a large volume of safe commercial paper endorsed by, or bearing the acceptance of, well-established banks or bankers, paper which is saleable at any time and which, by the customs of the country, is freely purchased or resold, as their daily needs develop, by financial firms and institutions. Finally, the laws governing and safeguarding the

creation and collection of such paper must be so clear and uniform, and the collection of such paper in every part of the country must be so easy, as to make an investment in such paper not only the safest but also the quickest asset of a bank. These conditions actually prevail in countries enjoying a powerful and well-organized central bank.

There is a very old English phrase saying, "John Bull can stand anything, but he cannot stand 2 per cent." Since this phrase originated, centuries ago, John Bull has seen lower rates, but none the less it remains true today. It means that money seeks to draw a fair return of interest, and it illustrates, furthermore, why a period of too easy money invariably brings in its train a period of expansion and overspeculation. With both phases the central bank is intimately connected. As the meteorologist draws his chart showing the points of high and low pressure, and from these deduces the probabilities of wind and weather, so a map could be drawn showing how money, among financially well-organized nations, flows with absolute certainty from the point of low interest rates to the point where a higher return can safely be secured. And just as low pressure is not the only factor determining atmospheric transformations, but as temperature and humidity are important elements as well, so in the movement of money also there are important local questions to be taken into account. Such are the rates of exchange which, as the case may be, either add to the interest rate to be earned in another country or else decrease the return to be received. There is furthermore the question of the degree of confidence enjoyed by each country.

As the insurance premium is commensurate with the risk of each transaction, so money exacts a larger return from investment in countries which are considered finan-

cially less secure, or in which, owing to a smaller or more irregular market, the investment cannot be so quickly resold. The total amount which the investor is willing to place in each particular country will depend upon these considerations.

An investigation of European conditions will show that money moves freely, according to this principle, between the larger and well-regulated European financial centers. In the face of political antagonisms money will flow to that center where the highest interest return can be received, provided that confidence in that particular country is so strong that the higher rate does not act as a deterrent but as an inducement. Thus French gold began to flow into England when the English bank rate went up to 7 per cent at the end of last year. French capital at the attractive interest rate was invested in English bills to such a degree that the balance between the two nations turned in favor of England, and had to be settled by shipments of gold. In a similar way hundreds of millions of foreign capital move into Germany when rates become remunerative there, and leave that country again when the difference in rates,—the margin, as the banker calls it,—disappears.

We cannot too strongly grasp this idea of the power of the bank rate to protect and to attract gold. Without such power the central bank system is useless; for it would collapse when the first drain occurs.

How is it possible, it is often asked, for England to do this enormous business which comes to it as the world's clearing house, with so small an amount of gold. The answer generally given is that it is possible only through England's power to command the gold, thus implying the idea of immense balances due to England, which are called in when needed. While this at certain times may

be correct, it does not state the most important cause, namely, England's credit, the great confidence commanded by the English banks, and by their paper and the knowledge that that paper can always be resold without any difficulty whatsoever, and that, if required, it can be collected in actual gold. England's credit and her ability to adjust her rates of interest render her system possible and effective. Between the indebtedness of one nation to another and the actual settlement of that debt in gold there lies—as a buffer—the borrowing power of the banking communities of the respective countries. Nations, financially well-organized, will find that for a moderate inducement money will flow to them freely for the purchase of securities, or for the purpose of short-time investment. This buffer is strong in England, as it is weak in the United States. We have no modern and readily saleable paper which in critical times we can offer to foreign markets, and while the European banks work with fluctuations within fractions of one per cent, our primitive methods often mean that before the tide can be turned we must suffer fluctuations of interest rates of 100 per cent and a fall in the value of securities to bankruptcy prices.

Just as important as the protective power of the central bank, is its preventive power. When money becomes too abundant there is always danger that it may leave the country, and also that speculation may be unduly stimulated. It is during such a period of general exuberance and expansion that the central bank, if wisely managed, will draw in its funds and prepare for the coming storm; to accomplish this it will seek to stiffen money rates, and, by sounding its note of warning, it will often avert the coming crisis, or modify it into that normal form of natural reaction which inevitably follows any period of great prosperity and expansion.

On the other hand, a perfect central bank system will protect the country not only from too easy money, but also from too high rates during those periods when money is in active demand, as, for instance, in our country during the crop season. During such times a perfect central bank system will, without unduly increasing the rate, provide freely for legitimate demands. It will be prepared to let its reserve decrease materially, knowing by experience that the notes issued in excess of its normal circulation will quickly return after the particular business of a given season has been done. Thus we see that the end of December annually brings with it a large increase in the note circulation of the German Reichsbank, which notes, however, quickly return for redemption during the first two weeks in January.

From the banker's point of view, the chief features and advantages of a central bank system are the following: (1) the protection and replenishment of the country's gold holdings; (2) the creation of an elastic currency which tends to prevent too low money rates in times of abundance, as well as too high rates in times of money scarcity; (3) the establishment of a broad market for commercial bills—this market at bottom owes its existence and its importance to the central bank's readiness to discount such bills at any time, thus making the commercial bill the best quick-asset of a bank; (4) the fact that it acts as a bed-rock foundation for confidence in times of stress, because it centralizes the reserves of the country, thus rendering possible their free and effective use; and, finally, (5) the fact that it creates a central institution able to deal with other nations, in case exceptional measures become advisable, and with which other nations, even in times of the worst panic, can negotiate to furnish or obtain large loans of gold, as has frequently been the case between France and England.

The shortest and most striking way to illustrate the shortcomings of our system will probably be to review our experience of last year: We had, like Europe, gone through a period of rapid expansion, probably overexpansion, and a natural reaction was bound to come to us, as to Europe, and it did come to both. Expansion was probably more acute in Germany than with us; why then did Germany, much weaker than we, weather the storm without a panic, while we went into a most disgraceful state of utter helplessness and temporary bankruptcy?

We may leave the ephemeral question aside as to which "straw" it was that "broke the camel's back". After a long period of prosperity, there will, almost always, develop some point of weakness, where the break will first occur; and, as a rule, that break and the ensuing strain will bring down other parts of the structure affected by dry rot. Some "bubbles" were pricked in Germany also, and some ugly failures occurred there, but they did not create any panic. Distrust did not spread in Germany, because the general system, being what it is, keeps unshaken the belief that against good assets, good money will always be available, and so "hoarding" remains an unthinkable phenomenon. Furthermore, there was unimpaired confidence that so long as the Reichsbank was in general touch with the situation, though some things might be rotten, they would remain the exceptions; and that it would be impossible for all or even any large proportion of the financial institutions to be unsound.

We shall not deal with the question whether with us bad judgment and mismanagement had been so extreme that the resultant outbreak of distrust was, as a natural consequence, bound to be as violent as it proved to be, or whether artificial fanning of the flame by agitation, sensation, and exaggeration played any part in the unfortu-

nate development, or whether such a complete collapse of credit would under any circumstances have been possible had the legal foundation on which the whole industrial and financial structure rested been firmly and equitably constructed, and had it been less subject to violent upheavals.

Whatever causes may have combined in the United States to bring about the crisis of 1907, it cannot be doubted that it would never have reached such appalling dimensions had it not been for the lack of elasticity in our currency; the utter uselessness of our reserves; our inability to apply the brakes while we were going too fast; the absence of any means to negotiate for measures of relief with other countries through a channel recognized by them as official; and finally the lack of modern American bills of exchange, which, while serving as the means of settling the daily balances of the nation, would have been assets on which the banks might have realized in Europe and in the United States, by rediscounting amongst each other or at a central bank.

When the panic came, no outflow of gold had taken place, and no natural shortage of currency prevailed. Our existing per capita currency was very large, much in excess of that of most other nations, and there were hundreds of millions of currency in the banks and trust companies. But when, owing to an epidemic of distrust, people began to withdraw cash, it became strikingly apparent that our system was only a fair weather system, liable to absolute collapse in adverse times.

Where, as with us, there are no means of issuing additional currency against the best commercial assets, where the enormous reserves of cash accumulated in the banks cannot be used because each manager fears a run on his own bank if his reserves go below the 25 per cent limit,

it is inevitable that each bank must attempt to draw upon the reserves of every other bank, and that each will hesitate to pay out cash at a time when the panic-stricken public should be fortified in its confidence that its money is safe and that cash is coming out freely everywhere. Under such conditions the drain by the public must increase instead of being stayed, and it is inevitable that the worst and most aggressive hoarder will become the bank or trust company which, realizing that its 25 per cent cash reserve is quite useless, will, as an act of self-protection, and because no other way exists, use every means of "building up" a reserve, by preying on its neighbors, at the very moment when reserves should by all means be decreased.

From such a system there can result only one consequence,—a tremendous rise in interest rates and a tremendous fall in the price of securities; and if even these brutal effects do not attract foreign capital and do not convert the home depositor and hoarder into investors, a general suspension—politely called clearing house certificates—must follow in order to prevent wholesale individual suspensions. Our system, in fact, did not even permit us to suspend scientifically. When New York began to issue clearing house certificates and all the rest of the country had, as a natural consequence, to follow, the struggle for gold and currency became even more acute among the various cities, and a shameful gold premium which lasted for several months drained Europe's gold chests and brought needless harm and anxiety to our friends on the other side of the Atlantic.

Some years ago a stranger arrived late at night in a German town, and when he was about to leave the station he saw that there was only one cab left. He hailed the driver who, however, refused to move, and the policeman

explained that as the law prescribed that one cab should always be in waiting at the station the cab could really not be allowed to leave. Ridiculous as this story may appear, it is quite applicable to our law which prescribes that the 25 per cent reserve must always be kept intact.

It cannot be too strongly emphasized that our most urgent needs, in addition to the creation of an elastic currency, are concentration of reserves and the possibility of concerted action in lieu of our present system of decentralization.

Let us now consider what circumstances there are to prevent us from establishing a central bank similar to those found in the European systems. The chief difficulties are the existence of our bond-secured currency, the decentralization of our note issuing power and of our reserves, the lack of modern commercial paper on which to base an elastic paper currency, the existence of our obsolete usury laws, and finally the deep-rooted popular prejudice against anything bearing the name of a "central bank"; the fear alike of politics in business and of business in politics.

It is unnecessary to make a long argument against bond-secured currency. Only weak nations or a people in times of stress, generally during a war, have issued bond-secured currency; and every healthy nation as soon as it was again strong enough has always abolished this obnoxious system of inflation. As long as we have this bond-secured currency, we cannot succeed in getting an elastic one. Bond-secured currency always expands; it hardly ever contracts. Our recent legislation, enacted in the summer of 1908, was wisely created as a temporary measure only, since a far-reaching reform could not be successfully achieved in a hurry and without thorough research. The new law is an important step in advance,

inasmuch as for the first time commercial paper is admitted as a basis for the issue of notes. But unfortunately the issue of notes against commercial paper is made dependent upon the previous issue of bond-secured currency to the extent of no less than 40 per cent of the note-issuing power of a bank. This, and other conditions imposed upon such note issue, make the new currency an emergency currency, but not a healthy and normally elastic currency.

With elasticity we generally connect the idea of the rubber band. If we take an old and frayed rubber band, which has been stretched to its utmost capacity by holding together a large bundle of papers, we cannot make the old rubber elastic by tying to it a new piece of elastic band. Where this has been done we have indeed made room for more papers, and when this new room is filled, some little elasticity will develop, but if the papers should then decrease below their previous maximum size, the rubber band will stay as it is,—it will not contract. In order to have effective elasticity, the band must still fit tight when the bundle has been reduced to its smallest size. This means that, in order to make the old band elastic, we must shorten it considerably before we affix the new elastic addition. In other words, we must first of all redeem our bond-secured currency so that our note issue may hereafter be able to contract in times of abundance, and so that roughly, from the lowest point upward, the note issue shall remain in healthy touch with the demand for currency.

In redeeming the bond-secured currency, two points will have to be borne in mind: the one is that it must be done without injuring the banks that now own these bonds—or it will never be done, and besides, to do it otherwise would be unfair; the other is that we must be

able to provide new currency when we withdraw the old, so that no scarcity will be artificially created.

If I were asked to suggest how this could be done, I should propose an inverse conversion of the bonds,—that is, I should advocate the conversion of the present government bonds into bonds bearing a rate of interest higher by so much that after the privilege of issuing notes against them shall have been withdrawn the bonds will sell just as high as, and possibly a little higher than, they now sell with this privilege. This can be done gradually and in various ways; it would indeed mean an increase in the yearly interest charge to be borne by the United States, but it would put our bonds on a natural basis, like the English Consols or French Rentes, so that the American people could afford to own their own government bonds. In fact, this money, by securing a healthy financial system, and by protecting us from a repetition of past convulsions, would come back to us a thousandfold, and would constitute the best expenditure that our government could make.

In creating the new currency, we could probably follow the lines of the recent legislation, and provide for the organization of currency associations throughout the country. These associations, which should be open also for state banks and possibly also for trust companies, and which should be modified in many other respects, would discount the legitimate commercial paper handed in by their members and pass it on, with their endorsement, to the central issue department at Washington, which in turn would issue its notes against such guaranteed paper. Of course, such paper with such guarantee should be taken at par, and not at 75 per cent, as at present provided, and it should be taken at a uniform rate, to be published from time to time, by the central issue department. The cur-

rency associations would receive from the institution handing in the paper a certain remuneration for every endorsement or guarantee executed by them. (Whether the profit, after paying for the running expenses and after having accumulated a large reserve fund, should in years to come be paid out to the members of the associations, in proportion to their pro rata of the guaranty, is a detail to be worked out later.) A most important consequence of such a development would be that we should break with our present dangerous system by which the banks are filled with single name paper which they cannot resell, and which, under our present conception of banking, they could not attempt to sell without ruining their credit. The laws would, of course, have to be so amended that banks could endorse and accept freely as in Europe; and it will in time follow as a natural development that discount companies will be created, as in England; and that when money is in active demand in the South and offered freely in the East, the southern banks, instead of rediscounting with their association, will be able to rediscount frankly and openly in New York or in Boston or in Europe. If, as it is to be hoped, the currency associations and the discount companies will, at the proper moment, begin to establish two different rates for guaranteeing paper, a higher one for single name paper, and a lower one for paper bearing in addition to the commercial signature the acceptance of a bank or banking firm, we shall give an added stimulus to the modernization of our paper. When our banks once feel that they can rely on being able to rediscount their legitimate paper, they will be able to purchase the same freely without as now running the risk of dangerously locking up their capital through such investment.

I have repeatedly dealt with this question and with the

disastrous effects of our usury laws, and have tried to show that our system is in this respect directly opposed to the European system, and that our almost annual convulsions will perforce continue unless we make our commercial paper the quickest asset and the basis of our banking, instead of using the stock exchange call loan for this purpose.

As for the organization of such a central issue department, I have also dealt with this question on previous occasions, and I must not go fully into the details of that problem here. Suffice it to say that the board of trustees or directors should be composed of delegates from the various currency associations, of the Secretary of the Treasury, the Comptroller of the Currency, some members of the Senate and of the House, to whom some members of the commercial classes might be added by election of the stockholders. This body of men should elect two governors, salaried officers of highest standing and training, who would be retained in office as long as they are effective and honest, irrespective of the political party that may for the time being be at the helm.

The powers of the central department of issue should be strictly limited, and should be as follows: to discount paper, running not to exceed three months, for the various currency associations; to make advances against certain bonds (government bonds, savings bank bonds, etc.), at uniform, published rates, and up to certain percentages of their market value to be designated from time to time (whether such advances are to be made only through the currency association or also direct, is a detail which can be left open for the time being); to buy and sell foreign bills running not to exceed three months, and bearing at least three *bona fide* signatures; to deal in bullion and to contract for loans of bullion; to act as the depositary of

the treasury's money without giving collateral; and, finally, to receive deposits from the currency associations. The central issue department may issue notes which must be covered by gold or commercial paper—no less than one-third of the notes issued to be at all times covered by gold or legal tender.

A central department of issue so constituted would be beyond any possibility of abuse for political or other purposes. The constitution of the board and the limitations of its power preclude any such possibility, however remote.

In order that the central department of issue must command the highest possible confidence, and in order to provide a strong gold purchasing power from the start, it is suggested that the department be endowed with a large stock capital of, let us say, \$100,000,000. In order, however, to prevent any possibility of having the department administered with a view of earning large dividends for the stockholders, it is proposed to limit the dividends to a certain percentage, and after having accumulated certain reserves to turn over the balance to the United States government. Whether or not, in consideration of such profit to be received, the United States should guarantee the notes, may be left for future consideration.

The bugbear that somebody might buy the control of such an institution may safely be dismissed. A man or a group of men purchasing all the stock would not derive the slightest profit from it, except the limited return on the investment. They could not appoint the board, and even if they could do so they would not profit by it, as the department is restricted to a limited number of safe transactions.

The central department of issue should have the right to ask from time to time that the banks, through the asso-

ciations, deposit with it a certain proportion of their cash reserves; and the law would have to be amended so as to allow the banks to count as cash their deposits with the central bank of issue. The object of such an amendment is obvious, as the gold in the hands of the central issue department can do thrice the amount of good that it can do with the individual bank, which, after the organization of a central issue department, need not fear the withdrawal of cash so long as by rediscounting its sound and legitimate paper it can secure currency.

As for greenbacks and silver certificates, I believe that we could well afford to leave them untouched for the time being, and possibly use the surplus to be derived from the profits of the central issue department for the purpose of gradually retiring the greenbacks. With the bond-secured currency redeemed and replaced by an elastic currency, it is conservative to hope that with the large exporting power of this country we shall be sufficiently equipped to protect our gold, and that the greenbacks and silver certificates will represent no more than the pocket money of our large population. However, this scheme with all its details as far as they can be outlined in this brief address, does not pretend to be the only solution of the problem; it is a suggestion, subject to many modifications. I have great hesitation in outlining it at all, for while the Monetary Commission is so seriously at work, accumulating material for thought and study, I should have preferred not to express any views at this time. However, as this most important question cannot be solved by the politician alone, nor by men of science alone, nor by the business man alone, I feel that we, each of us, must do our little share, when called upon, and I therefore accepted your invitation, though fully realizing my own shortcomings for such an undertaking.

The advantage of the scheme as outlined is that instead of trying new experiments it proceeds on lines which have been successfully followed in the most important financial centers. Conditions are too different with us to permit of an exact copy of any of the European systems; but the proposed plan would tend toward the gradual evolution here of conditions that as we develop would render the central issue department more and more efficient and simple in operation.

Some schemes, which have heretofore been advanced, propose to leave the note issuing power with the national banks, and to regulate their reserves and rates by a central board or similar institution. I for one do not believe in such plans, the shortcomings of which are that, in order to be efficient, there must be too much interference with the liberty of conducting business. For such a central board would eventually have to dictate the rates at which the banks would be allowed to take money or to lend money, and a general guarantee of deposits is only one of the logical consequences of such a scheme. As a matter of fact, under that scheme there would be one central board managing all the banks—an entirely new departure and much more drastic than any central bank. If under that scheme such central interference were made less effective than above outlined, our present defects, namely, the weakness of scattered reserves, and the danger of the decentralization of the note-issuing power into more than 6500 banks,—would remain as obnoxious as before.

Other schemes have been suggested which propose to regulate the whole question automatically by a tax; but automatic measures cannot possibly meet in the most efficient way all the different eventualities that may arise. A drain from within must be met in a very different way from a drain from without, and a drain from both within

and without will again have to be treated in a different way. How then can we hope to attempt to create one measure which by a tax will automatically meet all these varying requirements? Besides, these measures provide for inflation without creating new reserves or effective means to attract and retain the gold. Most of these measures will remain passive measures; they scarcely have any preventive or protective power at all.

Some people believe that we should imitate the Canadian system. Without going into the question whether a system that has proved a success for six million people would also be well adapted for a population of eighty-five or ninety millions (and without discussing the point whether this system—like many others—could survive in the absence of the close relationship with the well organized English banking community), we shall only follow out this one thought: the Canadian system is based on the small number of some thirty banks with branches in every hamlet. The minimum capital of a bank admissible by law is \$500,000, but the majority of the banks have a much larger capital, some up to \$14,000,000. Of our 6650 national banks, 5367 have a capital of less than \$100,000. Are all of these to go into liquidation? And would not a concentration of the whole banking power into the hands of a few gigantic institutions with branch banks bring about the very conditions which popular sentiment abhors, and which the government is striving to avoid? The central bank system—and also the modified system of a central issue department—stands for sounder principles in this respect: it centralizes reserves and brings about the possibility of concerted action in the face of danger. By creating safe conditions, it makes the small bank independent and the danger of an overpowering individual control, instead of being aggravated is,

for this reason, immensely lessened by a central issue department. Thus the central issue department would protect the small bank and not menace it as is generally believed.

The central issue department is sound also in this, that each transaction which it brings about, directly or indirectly, is a plain business transaction. If a bank desires its paper guaranteed by the currency association, the bank pays the commensurate commission for such indorsement, and the guarantors earn the commission. If the currency association finds the security insufficient, it will refuse the business. Each transaction is an individual one, carefully scrutinized, and there is no unbusinesslike wholesale guaranty.

Nor is there any real interference; each bank deals with the currency association of its own free volition, and through it with the central issue department. The central issue department can post the rates at which it is willing to do business with others, but it cannot force anybody to do business at these rates, nor directly interfere with anybody's conduct of business. It is its indirect influence which is strong, and which is of the most beneficial effect.

Furthermore, it is a sound principle that the financial affairs of a nation should be guided not by an automaton but by will-power and brains behind the machinery, though strong restrictions must give the assurance that this will-power cannot go beyond certain safe lines. Such a system will be a vast improvement upon our present treasury organization, which is constructed on the one hand in order not to do what a central bank of issue ought to do, and which, on the other hand, as a consequence of our defective system, has gradually vested the Secretary of the Treasury with more autocratic and dictatorial powers than any central bank manager could ever exercise.

Finally, banks are money-making concerns. Money-making and money-issuing are two entirely distinct functions. It is precisely in order to abate eagerness in *making* money that the *issuing* of money at times must be rendered more difficult. Moreover, the note-issuing bank must be put beyond the danger of material losses and beyond the possibility of being drawn into individual transactions, for otherwise its credit will not be unassailable, as it absolutely must be, even in times of the worst panic. The ordinary bank, on the other hand, has the duty of taking commercial risks and of carrying on individual transactions. That is why with us, as in every modern country, general banking and the issuing of notes must be kept separate.

I have avoided calling the institution of the future a central bank, because, as proposed here, it is not a central bank. If, instead of the independent currency associations, this central issuing department were endowed with active branch offices dependent upon the head office, such a name would be correct. No doubt a central bank with active branch offices would be the more efficient, so far as concerns the controlling of the country's gold, its money rates, and its financial safety. But with our present political and financial conditions, it would probably be impossible, and in many respects unsafe, to vest such vast powers and duties in one body. Though the system suggested by me may be a little less effective and more cumbersome, we must, for the beginning at least, interpolate the currency association, or some similar institution, to stand as guarantor and examiner between the central issuing department on the one side and the local bank and its customer on the other. As our banking paper becomes modern, and as safe standards for the same develop, as we outgrow the financial and political dangers, which are

stronger in a country in its period of rapid growth than under conditions of more advanced and slower development, we may gradually—and it is to be hoped soon—simplify the system. But it is safe to leave this further development to the future, provided that we now find the right principle for the establishment of a sound basis. In constructing such a basis, it is better to err on the conservative side than to attempt too big a stride at the beginning. While we may disagree as to the extent to which a central bank system may be applied in the beginning, there cannot be the slightest doubt that the principle of that system must be adopted.

It is most surprising that so ineffective and obsolete a currency system as that of the United States should have been so long maintained by so eminently practical a nation. The explanation is that the wonderful resources of the country, its marvelous prosperity and natural everlasting credit balance against other nations appeared to legitimize and justify our system. The currency reformer has always been met with the argument that, while theories might be good for poor little Europe, practice proved that the American system was sound enough for the United States. We had to live through last year's horrible crisis to learn that we had been prospering in spite of our system, not in consequence of it, and that unless we effect a thorough reform, the future is bound to bring us similar disasters and similar disgrace as the past.

It is our duty to keep the memory of the crisis of 1907 fresh in our minds, for unless we grasp not only the danger but the certainty of its reappearance, we shall not realize the blessings and the absolute necessity of a central bank system in the United States.

CENTRAL BANKS.

O. M. W. SPRAGUE.

It is obviously impossible, within the limits of time at my disposal, to discuss in a comprehensive fashion the many problems suggested by the proposal to establish a central bank in the United States. I shall, therefore, attempt to do no more than merely indicate certain conditions which are likely to render the task of a central bank in this country extremely unlike that of the central banks of Europe—so unlike, indeed, that European experience affords little aid in estimating the probable results, which we might attain through its operation. In the second place I shall suggest certain less revolutionary remedies for our financial ills.

The problem which would present itself to the central bank in its capacity as government fiscal agent would be both difficult and unique. In England, France, and Germany government balances are comparatively small. The normal balance is less than \$50,000,000, and, at least in recent years, the maximum has not reached \$100,000,000. Moreover, the fluctuations of any single year are typical of every year, and being, therefore, foreseen, can be taken into account in the money market generally as well as by the central bank. In the United States, owing to our haphazard methods of legislation regarding appropriations, there is no uniformity in the fluctuations of government funds. During the first of the last four years the surplus was very nearly stationary; then came nearly two years of growth, adding nearly \$150,000,000, followed by more than a year of as pronounced decline.

During all that time the surplus has been greater than the maximum balances of England, France, and Germany taken together, and, during many months, greater than the total deposit liabilities of the Bank of England.

Our government surplus is, then, peculiar in that it is a large and, to a considerable extent, a permanent fund. The people would certainly and properly insist that it be used with some reasonably close approximation to the population of different sections of the country. But for the central bank to lend everywhere directly to the business community would be an evident impossibility. Thousands of branches would be required to furnish the facilities afforded by the Bank of France or of Germany through their network of something like five hundred branches. To lend chiefly through a few branches like the Bank of England, would not secure the same results in this country. In England, and indeed in all countries which have central banks, there is a high degree of concentration throughout the banking system. Somewhat less than a hundred banks in England occupy the banking field with several thousand branches. Credit, therefore, is highly fluid. If the Bank of England increases its loans in London, the other banks are then in better position to meet further requirements, whether in London or at their provincial branches. In the United States branch banking is generally prohibited. Each bank engages in local business alone, if exception be made of the employment of temporarily idle funds by outside banks in the large cities. Loans made by a central bank in New York or Chicago would have no influence whatever upon the available lending resources in Massachusetts or in Iowa. The central bank would, therefore, be obliged to lend to the banks generally. In other words, it would have to decide between the competing requests of fifteen

thousand or more banks throughout the country. While conceding that this would not be an impossible task for a central bank, it is at the same time evident that the undertaking is quite unlike anything performed by existing central banks in Europe. The prediction may be ventured that the government funds would be distributed in some more or less permanent fashion not altogether unlike that with which we are now familiar. To be sure, we should escape the inconvenience which arises from the hoarding of large sums in the Treasury, but that end could be readily gained if the Secretary of the Treasury were instructed to deposit in the national banks everything above a certain working balance.

Very much the same difficulties present themselves with regard to the issue of an elastic currency by a central bank. The issue of notes would be made through loans, and the central bank once more would be obliged to decide between the requests of thousands of banks. Moreover, the issue of notes would remove one very valuable restraint upon the expansion of credit in this country. Where checks are in general use, credit in the form of deposits has remarkable expansive qualities. Seasonal demands, if not too large, simply remind the banker that his deposit obligations are for payment on demand. Our crop-moving requirements call for perhaps \$50,000,000, an amount which our deposit banks should be able to pay out without disturbance. Inability to do so calls for a more conservative policy during the summer months rather than an additional extension of credit in the autumn. It should also be recognized that the results secured through the issue of notes by central banks in the countries of continental Europe do not afford much indication of what might be expected in this country. Where the check habit is not generally developed the extension of banking

credit is pretty closely limited to the money secured by the banks from capital surplus and the money paid in by depositors, together with the notes issued by the banks. In this country banks are able to lend their credit more largely through the granting of deposit credits upon their books. A given addition to their cash holdings permits an extension of credit to several times that amount. By substituting the notes issued by a central bank for money now in circulation which could be counted as reserve, our banks could further enlarge the credit structure until checked by gold exports, unsound business conditions, and lack of confidence. The Bank of England is the only central bank in a country in which deposit banking is highly developed, but it affords no example of the effects of the issue of credit bank notes, since its notes are practically gold certificates. It may also be added that the Bank of England has managed very well without the power of extending credit in the form of notes.

The better disposition of government funds, and the issue of notes in normal times, are, however, of but insignificant importance in comparison with the service which a central bank is expected to render in times of crisis by those who urge its adoption. Any device would indeed be welcome which would mitigate the recurrent panics and suspensions to which the American credit system has been conspicuously subject. It is necessary, however, to make certain that the causes of these troubles are of a nature to be removed by a central bank, and if so, whether more simple remedies are not equally promising.

During a crisis it is important that loans be continued, that gold exports be checked, and, if possible, gold imports be secured, and, above all, that the banks continue cash payments, so that the domestic exchanges may not be dislocated. The first of these objects—the continuance

of loans—has been secured since the crisis of 1857 through the device of the clearing house loan certificate. Unfortunately, however, the issue of these certificates has come to be regarded as somehow involving the suspension of cash payments. This view is based upon an entirely mistaken conception of the purpose and origin of the loan certificate. In the crisis of 1857, the New York banks generally curtailed their loans, because each bank feared an unfavorable clearing balance. The loan certificate was first made use of in 1860 purely for payments between banks. It removed the temptation to pursue a policy of loan contraction because a favorable balance could be paid in certificates and not in money. The use of this device does not diminish in the slightest the obligation of the bank to pay its depositors cash on demand. It is indeed true that in some of the western southern cities the loan certificate has been used in payment to depositors. Such use is demoralizing and cannot be too strongly condemned. Still another advantage may be mentioned from the issue of loan certificates when confined to payments between banks. It is a ready means of rendering aid to the weaker banks, the necessity of which in a crisis was well illustrated in the case of certain trust companies in New York in 1907. It is of course possible that a central bank would be able to handle a crisis, so far as loans are concerned, more satisfactorily, but it is at least uncertain. At all events, we have in the loan certificate an alternative method which has proved adequate in the past.

Continuing our examination of past experience in the matter of loans, it is significant that loans have not been greatly diminished on account of crises. The national bank returns for August and December, 1907, for example, show a reduction for the country as a whole of

but slightly more than two per cent, and a positive increase in most of the cities. Money rates, especially for call loans, in that and other crises, did indeed reach much higher levels than in other countries during similar disturbances. In part this is due to the system, peculiar to ourselves, of daily settlements on the Stock Exchange. In part it is due to a failure to recognize that no class of loans, not even call loans, can be reduced suddenly upon a wholesale scale by the banks generally. Money pools are a momentary device, and the clearing house loan certificate is a more permanent device which check the unavailing effort to reduce the customary banking accommodation.

Summing up the situation with regard to loans, we find difficulties which are not incapable of modification under our present system. The same difficulties would present themselves if we had a central bank, especially those arising from our Stock Exchange methods, from the number of banks which would require support and the much larger number the coöperation of which it would be necessary to secure.

Little need be said with reference to foreign exchange, although to secure favorable exchanges is the chief concern of foreign central banks. We have never experienced any difficulty in securing gold imports, with the possible exception of the crisis of 1893, when our currency was redundant. The character of our foreign trade places us in a position of great advantage. Moreover, our exporters regularly draw bills upon foreign purchasers, and these bills are regularly discounted in Europe. Consequently, payments for our exports are immediately convertible into cash. If any difficulty were to arise from this source, it would be due to the large amount of anticipatory and finance bills which are drawn

by foreign exchange houses upon their European correspondents. Had the volume of such bills been as large, as has at times been the case, just before the crisis in 1907, we might not have been able to draw any large amount of money from Europe. This is a danger which could hardly be prevented if we had a central bank. Moreover, it should be noted that some of the advocates of a central bank seem to expect that by its means still greater recourse may be had to European loanable funds, through the discount abroad of purely domestic bills. When it is remembered that we finance practically none of our over-sea trade, and incur much temporary indebtedness by finance bills, a plan which would still further expand our temporary foreign obligations seems hardly conservative, to say the least.

Finally we come to the most serious weakness which has manifested itself in the working of our banking system—the almost invariable suspension of cash payments whenever a crisis occurs. If a central bank is the only means of preventing this calamitous evil, that alone is indeed sufficient reason for its establishment. It does not, however, seem clear that cash payments cannot be maintained without a central bank. Where there is a central bank this responsibility rests primarily upon it. In this country the responsibility is divided among all the banks, but it is not equally divided. National banks in reserve and in central reserve cities, which secure bankers' deposits, are in this respect analogous to the central banks of Europe. There are less than four hundred national banks in those cities, and by no means all of them secure such deposits. Concentrating attention on the central reserve cities, it is significant that in November, 1908, \$700,000,000 out of a total of about \$1,000,000,000 of bankers' deposits were held in New York. Nor is this all.

Very nearly all of these deposits were held by the six largest New York banks, and these banks held quite four-fifths of the total cash held by the New York national banks. These banks in accepting these enormous bankers' deposits have clearly incurred responsibilities similar to those of European central banks. But it is equally true that this responsibility is not so clearly recognized as it is in Europe. Indeed, it may be doubted whether it is perceived at all.

Now the question arises in what way a central bank would be at an advantage over this small number of banks in meeting crisis conditions, except in the one respect of the power to issue notes, and that, it may be observed once more, is not a power of practical utility in the case of the Bank of England unless the act of 1844 is suspended.

The national banks compete for bankers' deposits, offering interest and other inducements, while it is a universal rule among central banks to pay nothing for deposits. This makes it possible for the latter to hold large reserves and still earn reasonable profits. For many years after the practice was inaugurated in New York the policy was severely criticised, but long custom has led to its general acceptance. Nothing short of a law against interest payments upon bankers' deposits will be likely to remove this particular evil.

The fundamental difficulty in our present system, however, is due, not to insufficient cash reserves, but to the failure to use them in emergencies. Partly by law and even more by custom we have burdened ourselves with reserve restrictions which are unique in banking practice. To maintain a certain proportion between cash and deposit liabilities has become an object to which every other consideration has become secondary. It is, indeed, true

that a reserve requirement is desirable for normal times in a system which has thousands of banks. But it is equally important that the propriety of using reserves in emergencies should be recognized both in legislation and by public opinion. If one of the existing central banks were subjected to a restriction of this nature, suspension could not be avoided. Almost equal danger would be incurred in this country were the central bank unfettered in the use of its reserve, while the present restrictions remained in force as regards the other banks. The same scramble for funds that has characterized previous crises would unquestionably arise.

It may, however, be suggested that a central bank would be able to meet the situation by indefinitely large issues of notes. This is perhaps possible. But in that case the demand for a central bank becomes merely a demand for a device to secure elastic notes in order to retain a rigid reserve. It is submitted that elasticity in reserves is a far more natural and simple remedy. It might, however, be of advantage to provide an emergency circulation which would be taken out by any bank, under conditions which would not be so complicated as to render its use unlikely.

That our present reserve requirements are the chief cause of the suspension of cash payments is clearly shown by the course of events during the crisis of 1907. During the last two weeks of October, while the disturbance was almost entirely confined to New York City, the clearing house banks experienced a net loss of about \$40,000,000, and their reserves were \$53,000,000 below the twenty-five per cent requirement. Gold imports had been engaged, the Treasury was depositing surplus funds, and arrangements were being made to increase the note circulation. More money therefore was in sight. Demands

for money were being made in increasing magnitude by bankers in all parts of the country upon their New York correspondents. Thereupon cash payments were restricted. The New York banks at the time held \$224,000,000, and in the following three weeks allowed the reserve to fall off only \$9,000,000. Thereafter to the end of the year, while the currency premium continued, reserves were increased until they reached \$251,000,000.

The contention of bankers that suspension was unavoidable rested entirely upon the delusion that the reserve percentage is to be maintained though the heavens fall. Contrast with the action taken by the Bank of England is significant and at the same time humiliating. At the beginning of the crisis it had a banking reserve of \$125,000,000. In two weeks, chiefly on account of gold exports to the United States, it lost some \$40,000,000. The Bank of England then held only \$85,000,000, while the New York banks held over \$200,000,000, and yet no one in London even thought of the possibility that the Bank might suspend. The Bank had no more means of attracting funds than were possessed by the New York banks. In fact, it did not in the closing weeks of the year attract so much gold from other countries as was brought to New York. In London there was general confidence that the Bank of England would continue to meet its obligations. In this country, on account of experiences in former crises, that confidence was lacking. If, however, the six large New York national banks had announced at the end of October their united determination to meet all demands of their outside banking depositors, it cannot be doubted that confidence would have been strengthened and unnecessary demands would soon have diminished. Had this not proved to be the case, and had the payment of a hundred millions or more

proved unavailing, then suspension might have been resorted to as a means of security. The attempt, even if a failure, would not have involved disastrous consequences, since, when the banks suspend it matters little whether they hold a little more or a little less reserve. In any case, the reserve ceases to be available for use.

Progress in this direction, however, does not seem very likely. The fetich of a fixed reserve has apparently taken a stronger hold upon the community since the recent crisis. Trust companies and state banks are being brought under its sway. Unless there is a parallel development of right thinking about the uses and purposes of reserves, it may be confidently predicted that this legislation will tend to hasten rather than prevent suspension. Something might be accomplished if the proportion of reserve which may be deposited in city banks were diminished. An emergency currency would be of some assistance. But above all we must recognize that a reserve is to be used, not hoarded and increased, in time of crisis.

CENTRAL BANK—DISCUSSION.

HORACE WHITE: Something must be done to put an end to the periodical suspensions of the banks. The greatest evil attending them is the bad education they give. They tend to deaden the sense of commercial honor. Every such suspension is a license to every financial institution to scale its debts or postpone the payment of them. They assume the right to pay or not to pay according to their convenience. Some banks in such cases pay their own debts and those of their weaker neighbors also. Others refuse to pay even when they are able to. Each is a law unto itself for the time being, and the time is indefinite.

While the chaos continues the banks assume the right to pay their obligations with something which is not money. They pay with a rubber stamp, which is elastic in a double sense. Sometimes it is worth 100 cents, sometimes 90 or any price between. One day in the recent panic I went into the bank where I kept an account, and, meeting the president of it, I remarked to him that I had bought a small amount of currency in Wall Street at a premium of 4 per cent. He replied that it was lucky I was not compelled to buy a large amount, as he had just witnessed a purchase of \$500,000 at a premium of 6 per cent. If the purchaser in this case had required a million the premium might have been 10 per cent.

When the banks thus repudiate their obligations their depositors can hardly do otherwise. Frequently they are compelled to pay their workmen with stamped cardboard, which the latter force upon retail shopkeepers and street

peddlers at a loss to both payer and payee. All these things are done in disregard of law and in defiance of it. These breakdowns have been so frequent in the past fifty years that they are now regarded by many well-meaning people as a part of the natural course of things. Clearing house certificates and rubber stamps are looked upon as desirable *per se*—as something like Pond's Extract, or Peruna, which should always be kept in the house. The public mind is approaching the condition which prevailed in antebellum times, when banks that were under suspension continued business for years and actually declared dividends when they were not paying their own debts, and so continued until compelled by special acts of the legislature to resume. In short, these repeated occurrences tend to legalize commercial dishonor. We are already discredited abroad by them, and they are teaching the rising generation that a general suspension, with its progeny of illegal shimplasters, is a dexterous method of avoiding bankruptcy instead of being a shameful confession of it.

Another demoralizing effect of it is that when a crisis comes the speculators, who are most to blame for it, clamor for government aid. So common is this, and so vociferous and so generally expected, that the government even runs ahead of the speculators and offers help before they ask it. The remedy, however, may be only a prolongation of the disease. At all events the specimen given to us of this kind of government aid in the recent panic should serve rather for a warning than for an example.

What is it that makes clearing house certificates, and stamped cardboard, and a premium on currency necessary? The panic, of course. A trade reaction, and a bank panic, although closely allied, are two different things. Canada had a trade reaction last autumn, as se-

vere, and of the same kind, as our own, but she had no panic. Most of the countries of Europe had trade reactions akin to ours, but no general bank suspensions and no runs on banks by depositors, or by banks on each other. We had runs of both kinds, beginning with the latter.

The run by the depositing banks on the reserve banks began about a week before the individual depositors learned that there was any trouble. And after the individual depositors took the alarm their demands upon the banks were more moderate than those of the banks upon each other. The danger of suspension to a banker is more imperious and terrifying than to an individual. To the banker it is a leap in the dark. He will avoid it by every means possible. The instinct of self-preservation prompts him to fortify himself with cash, and to this end he draws the balances which he holds in other banks. Each one thinks that if he should refrain from doing so others would not. Would his depositors applaud him for sacrificing himself and them for the general good? On the contrary, they would call him a fool and would transfer their accounts elsewhere.

The first step toward reform is to take away the motive which impels the banks to make runs upon each other. How is this to be done?

The main difference between ourselves and those countries which did not have a panic and general suspension last year was that we had greater resources with inferior bank credit, while they had inferior resources with greater bank credit. The wealth of Canada is much less than ours. Moreover, the wheat crop of Canada last year was in part frosted and under suspicion, while ours was sound. Yet Canadian bank credit was not shaken. The banks did not make runs on each other, therefore the pub-

lic did not make runs on the banks. There are no country banks in Canada as we understand that term,—only branches of thirty-five city banks, the heads of which are near enough to each other to secure unity of action.

In European countries generally credit is fortified by a central bank, which has the power of issuing circulating notes limited only by its cash reserve and its commercial assets. Usually the central bank is allowed to establish branches at its own discretion. Its principal function is to discount any and all bills of exchange which bear two or more names and which represent actual business transactions. The fact that there is such a bank easily accessible is a guaranty that no sound business can suffer for the want of banking accommodation, and that every secondary bank can get its own bills of exchange re-discounted, if need be. Therefore the ingredients of a panic do not exist. Speculators may fail, unsound business may collapse, but there will be no clearing house certificates, no stamped cardboard, no premium on currency.

If there is any way to abort a panic before it begins, other than the branch bank system of Canada, or the central bank system of Continental Europe, I do not know what it is. Which of the two ought we to prefer?

If we had *carte blanche*, if we were now beginning to create a system, I should certainly choose the Canadian plan, because we know exactly how that system works in a territory like our own, which is in part populous and wealthy, and in part scattered, thinly peopled, and relatively poor. But the branch system of Canada is the very *bête noire* of our rural banking fraternity. I participated in a joint debate on branch banking a few years ago at a bankers' convention in Kansas City. I favored branch banking and my competitor opposed it. It seemed

to me that I had all the argument and he had all the votes. I became satisfied that branch banking can never be introduced in this country until the bankers of the smaller communities are convinced that they will not be snuffed out or materially harmed by branches of the large city banks established alongside of them. You can never induce Congress to vote for anything that the small banks are generally and strongly opposed to.

The central bank system, to be really efficient, must be allowed to have branches also, and to choose the places where they shall be situated, but it is not necessary that these branches should compete with local banks for local business. The very *raison d'être* of a central bank is to lend aid to local banks, to re-discount for them and to fortify bank credit generally, so as to prevent panics and runs. Moreover, it is practicable to make the local banks the owners of the central bank, so that its power to do them injury (if it could ever have a motive for doing so) would be nil. It is also practicable to have the government control the central bank either partially as in France, or wholly as in Germany.

Time does not permit me to go into details, and I acknowledge that this question is one mainly of details. How to make the benefits of the central bank ramify all parts of the country is a problem to be solved. I do not affirm that it can be done. Neither can anybody affirm that it cannot be done. It is a problem fit to engage the attention of the present Currency Commission and I am glad to know that they appreciate both its relevancy and its magnitude.

JOSEPH FRENCH JOHNSON: I am in agreement in the main with what has been said by Mr. Warburg and Mr. White, but am not altogether in harmony with the views

and opinions expressed by Professor Sprague. In my opinion the panic of October, 1907, was due, not to the policy followed by the banks in New York City, but to the weakness of our banking system as a whole. The bankers of New York are as able and prudent as the bankers of any city in the world, and they did all that any set of men in their positions could have done to avert the panic. They were unsuccessful simply because it was not possible for them, except by suspension of cash payments, to prevent the banking reserve of the country from being scattered and thereby made ineffective.

The greatest defect of the banking system of the United States is its lack of unity and solidarity. This defect can be remedied either by the adoption of a branch banking system or by the establishment of a central bank under government control. Branch banking is not in favor in this country for the reason that the thousands of small banks in the country naturally regard it as antagonistic to their interests. On account of their opposition any discussion of the advantages of branch banking in the United States is and probably always will be purely academic. Politically it stands no chance whatever. It is a mistake, however, to assume, as some people do, that a proposition to create a central bank of issue under government control can never receive approval. This country has never had any experience with such an institution, for the government had practically no voice in the management of the First and Second Banks of the United States. If the bankers of this country can be made to understand that the government, by engaging in the banking business in some such way as is suggested by Mr. Warburg, will be able to guard and promote the financial interests of the people, helping rather than hurting existing banking institutions, and giving our banking

system a unity and stability it now lacks, the idea will speedily win favor with bankers and then with politicians.

There is a double banking problem in the United States: (1) a more elastic currency; (2) a better control of loanable funds. The average banker in the United States does not clearly see the connection between his lending power and the savings of the people. He measures his lending power by the amount of his cash on hand plus his credit balances in other institutions. On account of his isolation he is familiar only with the needs of his own community and is incapable of forming an accurate judgment with regard to the demand for and supply of capital in the country as a whole. Hence at times, governed purely by local conditions, he makes advances boldly when general financial conditions demand that he be cautious and conservative. A central bank of issue with branches doing business in all the important cities, would serve, not merely as a clearing house for bank notes but also as a clearing house of information with regard to the country's financial needs and prospects. In my opinion the subject of banking reform is one to which the economists of the United States ought to give most serious attention. Economists and practical bankers, working together, ought to be able to develop a system which will forever prevent the recurrence of such a panic as that of October, 1907.

THE WORK OF THE NATIONAL MONETARY COMMISSION.

A. PIATT ANDREW.

I am glad to have an opportunity to tell the members of this Association something about the work of the National Monetary Commission, with which I have the honor to be associated. This work, which has been quietly carried on during the past six months, is of course primarily interesting because it is preparing a foundation for legislation upon one of the most important subjects which has ever occupied the attention of Congress. But the work will also interest members of the Association because there will be made in the course of the coming year, in the Commission's report to Congress, a very significant contribution to the scientific literature of banking. It is more particularly in regard to the latter phase of the Commission's work that I am able to give some information today.

When, soon after the passage of the so-called Aldrich-Vreeland act, Senator Aldrich and his associates set about to organize the work entrusted to them, they knew from their abundant experience in the debates preceding the passage of that act that there was more than one banking problem clamoring for settlement, and that the number of proffered solutions for each of them was legionary. They recognized, furthermore, that no satisfactory and permanent plan for reorganizing our banking system was likely to be selected without a much more thorough examination of conditions, both here and in other countries, than had yet been made. Very wisely, therefore, they

proposed to devote a year, or a year and a half, or whatever time might be necessary, to investigation and to securing information before attempting to frame any law. This foundation work has been carried on now for more than six months, and, as no public statement has yet appeared with regard to it, you will doubtless be interested to know something about its method and scope.

At the first session of the Commission, which was held at Narragansett Pier, in July, it was voted to send representatives of the Commission to the leading countries of Europe to collect information with regard to the organization of banking in these countries, and a sub-committee for this purpose was appointed, which sailed early in August to carry out the plan. We spent the greater part of the three following months in England, Germany, and France, instituting inquiries in each of those countries by several methods: (1) by stenographically reported interviews; (2) by specially prepared monographs and reports from writers of financial authority; and (3) by specially collated statistics.

The interviews were held with the managers or directors of most of the large banks of England, France, and Germany, with the idea of ascertaining at first hand the exact nature of the business conducted by them, the laws and customs governing their operations, and the practical relations of the different sorts of banks with each other. They were informal, but were conducted more or less uniformly along a prearranged plan, and in most cases were stenographically reported. After having been presented to the persons interviewed for correction, a transcript of these interviews will be embodied in the Commission's report to Congress, and will, I am sure, be of great interest and value to American students of financial matters.

In London such interviews were held with Governor Campbell and several directors of the Bank of England, with Mr. Edward H. Holden of the London City and Midland Bank, with Mr. R. W. Whalley of Parr's Bank, with Sir Felix Schuster of the Union of London and Smith's Bank, with Mr. Charles Gow of the London Joint Stock Bank, with Lord Swaythling, and with representatives of the London and Westminster Bank, the National Provincial Bank, the Hong Kong and Shanghai Banking Corporation, the Bank of Liverpool, the Swiss *Bankverein*, and other institutions.

In Berlin interviews were held with the officers of a dozen different varieties of banks, including the president and directors of the *Reichsbank*, and directors of the *Deutsche Bank*, the *Dresdner Bank*, the *Disconto Gesellschaft*, the *Handels Gesellschaft*, the *Royal Seehandlung*, the *Pfandbrief Bank*, the *Preussische Central Bodenkredit Actien Gesellschaft*, the *Preussische Central Genossenschafts-Kasse*, the *Schultze-Delitsch Genossenschaften*, the *Berliner Sparkasse*, the *Kur- und Neumärkisches Ritterschaftliches Kredit-Institut*, the *Berliner Kassen Verein*, and representatives of various private banks as well.

In Paris interesting conferences were held with M. Pallain, governor of the *Banque de France*, and with representatives of the *Crédit Lyonnais*, the *Comptoir D'Escompte*, the *Société Générale*, the *Banque de Paris et des Pays-Bas*, the *Crédit Foncier*, the *Crédit Agricole*, the *Caisse des Dépôts et Consignations*, and the *Caisses d'Epargne*.

In the second place, in each of these countries an attempt was made to secure the coöperation of leading authorities in preparing reports covering important phases of their banking history and banking practice. In Eng-

land the Commission secured contributions from such men as Professor H. S. Foxwell, lecturer in the London School of Economics; Mr. Hartley Withers, financial editor of the *London Times*; Mr. Francis W. Hirst, editor of *The Economist*; Mr. George Paish, editor of the *Statist*; Mr. Robert Martin Holland, honorable secretary of the clearing house; Mr. Ernest Sykes, of the Central Bankers' Association, and Mr. R. H. I. Palgrave, whose work in this field certainly needs no description.

In Germany, under the advice of such authorities as Professor Conrad of the University of Halle, Professor Riesser of the University of Berlin, and Dr. Von Lumm of the *Reichsbank*, a series of volumes have been selected for translation, which cover comprehensively the history and operations of the various kinds of banks in that country. These translations will include the twenty-fifth anniversary volume of the *Reichsbank*, published in Berlin in 1900, a large number of the more recent discussions with regard to the renewal of the *Reichsbank* privileges, the well-known work of Professor Riesser upon the history of the large German banks, and a selection of other works upon mortgage banks, *Landschaften*, *Rentenbanken*, *Landeskultur-Rentenbanken*, *Genossenschaften*, savings banks, and special phases of German banking, such as the history and regulation of the German Bourse, and the organization of the German money market. In the list of contributors are included well-known names in this field like Lexis, Stroell, Koch (the late president of the *Reichsbank*), Hecht, Hermes, Schachner, Seidel, and others.

In France the Commission has secured the assistance of M. André Liéssé, professor in the *Conservatoire National des Arts et Metiers*; M. Albert Aupetit, head of the archives of the *Banque de France*; M. Lefevre, head of the

archives of the *Crédit Lyonnais*; M. Vidal, editor of *La Cote de la Banque et de la Bourse*, all of whom are contributing monographs on different phases of banking in their country.

At the same time, leading authorities have been engaged to discuss the organization and history of banking in other countries, notably Switzerland, Japan, Sweden, Canada, Mexico, Austria-Hungary, Russia, and Holland.

In the third place, the Commission has also undertaken in the more important countries to secure statistics with regard to the operations of all the banks, with regard to movements of trade, shipments and receipts of gold, the relative use of money and credit in making payments, and with regard to the growth of population, business, wealth, and commerce. These statistics are being collected upon a uniform scheme for all countries concerned so that ready comparison will be possible.

Finally, as regards the United States, a similar collection of material has been gotten under way in this country. Monographs have been engaged from authorities known to you all, covering as thoroughly as possible every important phase of American banking. In connection therewith a very comprehensive series of statistics is being arranged for with the assistance of the Bureau of Statistics, the Comptroller of the Currency, and the various supervisors of state banks, together with the editors of the *Commercial and Financial Chronicle* and other leading journals, which it is believed will contain considerable information that has never been gotten together before. Especially interesting will be the reports which we are endeavoring to collect from the leading banks of the country with regard to their shipments and receipts of cash, which will throw light upon the extent of the seasonal fluctuations in the demand for currency in dif-

ferent parts of the country. Another inquiry which the Commission is making, not only with the banks of the United States, but with those of England, France, and Germany, is as to the proportion of cash and currency substitutes in their receipts for a series of days. We hope from this investigation to be able to present comparative tables showing statistically the relative importance of the check and deposit system in all of these countries, a statistical comparison which has never been made before. Another plan of the Commission is to secure a uniform and simultaneous statement of condition from all of the national, state, and private banks and trust companies in the country according to a specially prepared schedule of resources and liabilities. No like inquiry has ever been attempted before. I merely allude to a few of these arrangements in passing. There are other lines of inquiry equally worthy to be signalized, which the limits of time will not permit my even mentioning.

Such is, in briefest outline, the plan for the foundation work of the Monetary Commission. What form the superstructure may take, of what material it may be made, or whether the design and material selected will prove ideal from the point of view of theory or practice, these are questions which can only be answered in the future. With regard to this preparatory work, however, upon which the final edifice is to be built, there can be no two opinions, for neither time nor expense nor effort are being spared to make it thorough and substantial.

This great collection of information will, of course, not be reserved for the Commission or Congress. It will in due season be placed at the disposal of the public, and the Commission hopes that intelligent men everywhere will take advantage of the opportunity to study the conditions and experiences of other countries and coöperate

with them in devising a banking system worthy of America's position in the world, and comparable to her resources. The problem of framing an act which will remedy the defects in our existing system in a practicable manner, which will include some of the best features of other systems without disregarding the differences in American conditions and traditions, which will draw under its influence not only our 7000 national banks, but the 12,000 other banks as well, and which will meet the needs of all sections of the country, and of the different interests within those sections, this indeed is a formidable problem which would only be approached by men of optimistic beliefs and which can only be resolved through the confident coöperation of men of intelligence everywhere in the country.

CONTROL OF THE CAPITALIZATION OF PUBLIC SERVICE CORPORATIONS IN MASSACHUSETTS.

C. J. BULLOCK.

Control of capitalization is a highly desirable, if not an indispensable, concomitant of governmental regulation of the operation and charges of public service corporations. Legislatures or commissions may act without regard to outstanding securities, and courts may pass upon the reasonableness of such action without considering the capitalization of the corporations affected by it. But it is clear that some problems can be greatly simplified and certain difficulties wholly avoided if our legislation proceeds upon the principle of locking the door of the stable before the horse strays or is stolen.

Massachusetts was the first state to undertake systematic control of the issue of securities by public service companies, and her laws have been in force a sufficient time to afford a fair test of their wisdom and efficacy. The policy of the state has been generally approved by economists and publicists, and until recently has encountered little criticism except from representatives of public service corporations. We have had, however, very little serious investigation of the subject; while there has been a tendency to make a fetish of the "anti-stock-watering laws", and to suspect that sinister motives actuate anyone who casts doubt upon their sanctity or universal efficacy. For this reason, and in view of the fact that other states are beginning to legislate upon the subject, it seems worth while to invite attention to the policy pursued by Massachusetts.

I.

The general policy of Massachusetts has long been to require that shares in the capital stock of public service corporations shall be issued only for cash and at not less than their par value.¹ Passing over the period when such matters were governed wholly by special charters, we find that in 1852 railroads were expressly prohibited from issuing stock for less than its par value,² and that a few years later the same restriction was placed upon all other corporations.³ Subsequent legislation has but strengthened this requirement by iteration and reiteration, by express prohibition of stock and scrip dividends, and by creating state commissions to supervise public service industries and enforce compliance with the law.⁴

That these statutes have never been violated in any degree, cannot be maintained; that in one devious way or another organizers of companies have sometimes managed to secure a profit not contemplated or permitted by the law, is generally believed; but it cannot be doubted that Massachusetts has in the main succeeded in confining

¹ Only manufacturing and mercantile corporations are allowed to issue shares for anything except cash, and that since 1875. Ch. 177 of 1875. Under certain conditions water and aqueduct companies may take property in payment for shares. Ch. 380 of 1894.

² Ch. 303 of 1852.

³ Chs. 167 of 1858 and 104 of 1859; General Statutes (1860), ch. 68, sec. 9. In 1851 the general incorporation act for manufacturing corporations had prohibited these companies from issuing stock for less than par. Ch. 133 of 1851.

⁴ The present law may be found in the Revised Laws, ch. 109, secs. 19-28, and ch. 463 of 1906. Stock and scrip dividends were expressly prohibited by chs. 310 of 1868, 389 of 1871, 372 of 1874, and 350 of 1894. The railroad commission was created in 1869, and the gas and electric light commission in 1885. Directors of gas and electric light companies and of street railways are liable for debts contracted before the capital is fully paid in. Revised Laws, ch. 110, secs. 58-63; ch. 463 of 1906, part III., sec. 29.

stock issues of public service corporations to amounts representing approximately the actual money contributed by the stockholders. It is equally certain that the general results of this policy have been wholesome, and beneficial to the companies as well as the public. The public service corporations of Massachusetts have greater stability than they would have possessed if promoters and managers had enjoyed unlimited freedom in the issue of capital stock, and their securities bear a higher reputation as safe and conservative investments. After making all allowances and qualifications, it is a fact of great significance that the average capitalization of street railways in Massachusetts in 1902 was ascertained by the census to be less than half the average capitalization of such corporations in the country at large.⁵

But though the general results have been beneficial, it seems clear that at one point the law has been too rigid. The absolute prohibition of the issue of stock at less than par makes it difficult and sometimes impossible for an unsuccessful company to rehabilitate itself. Exceptional loyalty to a corporation and faith in its future are needed to induce stockholders to subscribe at par for shares worth at the time of issue very much less than that figure. Since 1902 Massachusetts corporations have been permitted to issue preferred stock,⁶ and at least one public service company that was unable to find a market for its common stock has been able to raise the capital it needed by an issue of preferred. But this is practicable only

⁵ The average capitalization in the United States was \$96,287 per mile of track; in Massachusetts it was \$45,600. Report on Street and Electric Railways (1902), p. 51. Only states with an insignificant proportion of urban population showed a lower average than Massachusetts, while states having a similar proportion showed average capitalizations ranging from \$103,267 to \$177,532 per mile.

⁶ Ch. 441 of 1902.

where earnings show some surplus above operating expenses and fixed charges; and, unfortunately, there are companies, particularly street railways,⁷ that cannot make such a showing. In these cases, after credit is impaired, no course is open except to await consolidation with some more prosperous company.

For such mergers the law offers inducements that sometimes contrast strangely with the policy of the commonwealth at most other points. Street railways, for instance, are permitted to consolidate subject to the approval of the railroad commissioners; and the law provides merely that in the process there shall be no increase in the aggregate issues of stock and bonds.⁸ The result is, ordinarily, that persons controlling a prosperous railway buy up the entire stock of an unsuccessful company, presumably at a low price. This stock is then exchanged, on a share-for-share basis, for new stock of the prosperous company, and the aggregate capitalization is not increased. The railroad commission permits this⁹ because it believes that the rehabilitation of unsuccessful companies is beneficial to the public. This it undoubtedly is; and, since the law makes such undertakings difficult or impossible in any other way, the general policy of the board is to be commended, even though in particular cases the profits from such operations have been excessive. But it is evident that the issue of new stock upon the share-

⁷ About half of the Massachusetts street railways, chiefly the smaller ones, are paying no dividends; and not a few are barely earning enough to cover operating expenses.

⁸ Ch. 463 of 1906, part II, secs. 52 and 53. The laws governing consolidation of railroads and gas and electric lighting companies are somewhat similar, but not the same at all points. Chs. 392 of 1906 and 463, part I, sec. 67.

⁹ In case of a foreclosure sale, the commission restricts the issue of new stock to an amount equal to the purchase price. Otherwise, exchange takes place upon the share-for-share basis.

for-share basis amounts to nothing more than its issue for less than its par value in cash, and that the law might just as well permit the thing to be done directly as to compel it to be done by indirection. It is clear also that a statute intended to safeguard the public interest may close the front door of the stable with such violence as to force the back door wide open.

In fact, it would be better for the law to provide that a company which has reached the end of other resources should be allowed, with the approval and under the supervision of the proper commission, to raise needed capital by an issue of stock at less than par. At present the stockholders in an unsuccessful company have no practicable alternative but to sell their holdings to persons in control of some more fortunate concern, and it goes without saying that in such a forced sale they negotiate at a serious disadvantage. It is probable, also, that the present method of effecting consolidations has permitted railways earning larger profits than they considered it wise to disburse in dividends to purchase worthless lines and then distribute their surplus earnings over a larger capitalization. Finally, it should be said that such a method of distributing surplus earnings may be grossly unfair to the minority interests in the prosperous corporations. When a coterie of directors with a few of their friends purchase the stock of the bankrupt road and exchange it at par for new stock in their own company, it is evident that the earnings formerly withheld are now distributed to the few stockholders who were let into the deal, and permanently withheld from all others. One of the early consolidations brought out a protest from the minority interest, and the railroad commission did not permit the new stock to issue until an adjustment had been made that was satisfactory to all parties. Similar protection would un-

doubtedly be given by the board in any other case, but the ignorance or apathy of small stockholders has allowed certain mergers to be carried through upon terms manifestly unfair to minority interests.

II.

Naturally enough, restrictions upon indebtedness have accompanied restrictions upon the issue of capital stock. Usury laws have survived in the requirement that no corporation shall issue bonds bearing over seven per cent interest,¹⁰ and the further restriction of gas and electric lighting companies to bonds paying not more than six per cent per annum.¹¹ Gas companies are expressly forbidden to issue bonds at less than their par value,¹² but the statutes do not prohibit other corporations from issuing bonds at a discount. This practice, however, is discouraged by the railroad and the gas and electric light commissions.

These commissions have control of the amount of stock and bonds that railroad, street railway, gas, and electric lighting companies can issue, and they have consistently refused to permit a company to capitalize discount on bonds. This is upon the theory that the purpose of the law is to confine the capitalization of public service corporations to the amount of money actually invested in their properties, and that discount on bonds cannot be considered money thus invested. The result is that the companies must either issue bonds at such rates of interest that bankers will purchase them at par, or issue them at less than par and in some way make good the discount. It is interesting to observe that at this point the policy of the commission is different from that followed by the New

¹⁰ Revised Laws, ch. 73, sec. 3.

¹¹ Revised Laws, ch. 121, sec. 10.

¹² *Idem*.

York Public Service Commission of the Second District.¹³

Under the rulings of the Massachusetts Commission it is evident that a company would naturally prefer to issue bonds on such terms that they would sell at or about par. But this is not possible when the bonds put on the market in any year are part of a larger issue, the general terms of which have been arranged some or many years previous; nor in arranging future issues, to be sold in installments when needed, is it possible to fix a rate which will enable every installment to find purchasers at par. Accordingly Massachusetts companies sell bonds at a discount when they must. They then make up the discount out of future earnings, or else endeavor to smuggle this item into estimates of construction work, purchased property, and other things which they are allowed to capitalize. The accounts of some of the companies show that discount on bonds has been prorated over the period for which the bonds run, and money annually set aside from earnings sufficient to make up the amount at maturity. There are rumors that this item has been otherwise adjusted by some corporations.

When one considers that the actual rate of interest will be the same whether five per cent bonds are sold at par or four and one-half per cents are sold at a discount, it is hard to see why the commissions have ruled as they have. The important thing is that the companies secure the most favorable rates obtainable, and this is all that the commissions need have insisted on. Under their rulings, if bonds have to be sold at a discount the balance of the money needed for the work in hand is raised by short-time loans, and the company may actually pay a higher rate of interest on these loans than it would have

¹³ See opinion hereafter quoted.

had to pay upon bonds. By this method, then, the interest charges may be increased, while the short-time loans may at any time cause embarrassment to the company.

The borrowing power is further restricted by limitations upon the amount of what the law considers the permanent debt. Following a principle long embodied in the laws relating to manufacturing corporations,¹⁴ the act of 1854, which authorized railroads to issue bonds, provided that such issues should not exceed "the capital stock actually paid in."¹⁵ Similar restrictions were subsequently placed upon other public service corporations. Telegraph or telephone companies may not contract debts exceeding one-half of their capital stock;¹⁶ gas and electric light companies may not issue bonds in excess of their capital actually paid in;¹⁷ and railroads and street railways may not issue "bonds, coupon notes, or other evidences of indebtedness payable at periods of more than twelve months from the date thereof", to an amount exceeding their paid-up capital stock.¹⁸

The wisdom of limiting the permanent debt to a certain proportion of the total capitalization is not open to question, and has never been the object of serious criticism. It is possible, however, that the proportion fixed for telegraph and telephone companies is too low, and may have contributed to the removal of a large telephone company from the state. Railroad and street railway companies prior to 1908 found just cause for complaint in the restriction of their bonds and coupon notes to an amount

¹⁴ The law required that the debts of such companies should not exceed the capital stock paid in. Ch. 53 of 1829; Revised Statutes, ch. 38, sec. 25.

¹⁵ Ch. 286 of 1854.

¹⁶ Ch. 217 of 1851; Revised Laws, ch. 122, sec. 7.

¹⁷ Ch. 346 of 1886, sec. 3; ch. 371 of 1890; Revised Laws, ch. 121, secs. 10 and 12.

¹⁸ Ch. 463 of 1906, part II, sec. 48, and part III, sec. 108.

equal to the par value of their stock, whereas a considerable portion of that stock has been issued at substantial premiums. Relief was given by a recent act of the legislature¹⁹ which authorized railroads and street railways²⁰ to issue bonds and coupon notes to an amount equal to the par value of their capital stock plus "all cash premiums" paid into their treasuries on shares issued in accordance with a law enacted in 1894, which will be subsequently mentioned.

A most singular fact remains to be noticed. While bonded debt has been limited very strictly, in a manner sometimes reasonable and sometimes arbitrary, practically no restrictions have been placed upon the power of public service corporations to pile up floating debt.²¹ In fact, unreasonable regulations at other points have in some cases compelled them to follow this line of least resistance, even when they would have preferred to finance their undertakings in a safer and more conservative way. Railroads and street railways can borrow all the money they please, and for any purpose, provided they make their notes payable in twelve months or some shorter period; other companies, in addition to this, can issue without restriction coupon or other notes running for several years, which may be somewhat safer than obligations payable within shorter periods but are often a source of embarrassment to corporations. The commissions have no power to prevent a company from borrowing money for

¹⁹ Ch. 620 of 1908.

²⁰ Gas and electric light companies made no complaint since they issue few bonds and are not restricted in the issue of coupon notes as railroads and street railways are.

²¹ There is a provision that any director or officer shall be liable to fine or imprisonment for voting to incur "any debt or liability except for the legitimate purposes of the corporation", but, even if intended to meet this case, it seems to have been inoperative up to the present time. Revised Laws, ch. 109, sec. 28.

the payment of dividends, or for making good the ordinary depreciation of its property; and there is reason to believe that both of these things have been done in not a few instances. Apparently the state has been watching the front door of the stable so intently that it has forgotten the very existence of the back door.

In some cases resort to the back door has been absolutely necessary on account of unwise and unreasonable restrictions upon the use of the front door. A large railroad was obliged to borrow money on its notes at eight per cent interest because it could not sell new stock at the high premium fixed by the railroad commission, and was unable to issue bonds in excess of the par value of the outstanding stock, even though part of that stock had been issued at premiums that had added many millions to the real capital of the corporation. Street railways, when beginning operations, have been obliged to issue notes running for twelve months or less, in order to raise the necessary working capital, because the commission does not permit the issue of stock or bonds for this purpose. It is not creditable to the state that public service corporations should ever be put to such shifts.

There is another class of cases in which part of the responsibility for unsound finance rests upon the managers of the companies. A corporation that has enjoyed fair credit and managed to pay dividends finds its earning power gradually or suddenly impaired. If dividends are forthwith reduced or suspended, as they should be unless the impairment is clearly seen to be due to temporary causes, the credit of the company suffers and the stock falls below par—perhaps very far below. As soon as this happens, it becomes impossible to raise capital for necessary improvements or extensions by the issue of stock, since the law provides that stock shall not go out except at par in cash; and the managers are therefore sorely

tempted to maintain dividends even though money has to be borrowed for that purpose. How often this has happened is, of course, difficult to determine; but there is reason for believing that the practice is not unknown, and it is clear that at this point the ironclad prohibition of the issue of capital stock at less than par creates a situation which encourages, if it does not compel, resort to unsound finance.

In 1907 the capital stock and funded debt of the street railways of Massachusetts amounted to \$132,619,000, while the unfunded debt was \$21,228,000, or nearly one-sixth of the capital stock and funded debt. That this proportion of floating indebtedness is excessive, and a matter worthy of serious consideration, will be denied by no one familiar with the conditions and prospects of the street railways of the state. The steam railroads operating in Massachusetts in 1907 reported unfunded debts that amounted to less than one-tenth of their issues of stock and bonds; while all the roads reporting to the Interstate Commerce Commission in 1906 showed "current liabilities" amounting to less than one-twelfth of their permanent capitalization. It is impossible in this paper to consider what action the state should take to improve the condition of certain street railways; but that some action must be taken before long is hardly open to question. At certain points it may be necessary to make less onerous the conditions upon which stock and bonds are issued; in some cases an increase of fares may be inevitable; but when either or both of these things are undertaken something should be done to insure thorough supervision, if not control, of the floating debts of the companies.

III.

Since 1894 the commissions have had control of the amount of securities that public service corporations can

issue for any or all purposes. Only such amounts of stock and bonds can be issued as the commissions may determine to be "reasonably necessary" for the purpose for which they are authorized; and in the case of railroads and street railways the limitation extends to "coupon notes and other evidences of indebtedness payable at periods of more than twelve months" from the date of issue.²² Railroads and street railways must apply to the railroad commission; gas and electric light companies, to the gas and electric light commission; and telephone, telegraph, aqueduct, and water companies, to the commissioner of corporations.

To determine the amount of securities "reasonably necessary" in any case, the railroad commission is expressly empowered,²³ whenever "the public interests require" it, to "employ competent experts to investigate the character, cost, and value" of the property of any company. The commissioner of corporations and the gas and electric light commissions are apparently expected to rely upon their ordinary office force. Corporations are explicitly prohibited from applying the proceeds of stock and bonds "to any purpose not specified" in the certificate obtained from the commissions; directors, officers, and agents who knowingly issue securities in violation of the statute are liable to punishment by fine or imprisonment, or both; and the supreme judicial court is given jurisdiction in equity, upon application of the commissions, the attorney general, or any interested person, to enforce compliance with the law.

An inevitable incident of this control over the amount of a corporation's capitalization has been control over the purposes for which securities shall be issued. In the

²² Chs. 450, 453, and 462 of 1894; 337 of 1897; 463 of 1906, part II, secs. 65-68; Revised Laws, ch. 109, secs. 24-28.

²³ Ch. 463 of 1906, sec. 1.

theory of the law the purposes for which stocks and bonds may be issued are determined by special acts or the general corporation laws; and this implies that the commissions, in passing upon applications by the companies, shall withhold their consent in any case where the securities are for a purpose not authorized by law. In any event the commissions exercise that power; and since the statutes sometimes define in very general terms²⁴ the purposes for which securities may issue, a great deal is left to their discretion.

Both the railroad and the gas and electric light commissions refuse to permit securities to be issued for discount on bonds. Both refuse to recognize such an item as compensation for promoters, although under the head of necessary legal and engineering expenses these crafty but indispensable persons sometimes manage to secure a "living wage". If they desire more than this they must purchase construction materials when cheap, and apply for an issue of securities when higher prices justify a higher estimate of the cost of construction work. In these and perhaps other ways it is rumored that a promoter's profit of from ten to fifteen dollars per share is sometimes secured by methods involving no excessive strain upon a conscience of average sensitiveness. The railroad commission has apparently disapproved of the issue of stocks or bonds to provide working capital, but the gas commission permits this item to be included in a company's original capitalization. In all of these matters there has been more or less friction between the companies and the commissions.

The issue of bonds at a discount has already received sufficient attention. The compensation of promoters is

²⁴ Thus street railways are authorized to increase their stock and bonds for sixteen specific objects, and "for other similarly necessary and lawful purposes". Ch. 463 of 1906, part III, sec. 103.

always a difficult question; but it seems clear that the promotion of solid enterprises is a legitimate and useful function for which reasonable compensation should be allowed, and it is better that such allowance should be made openly and directly than that it should be secured in other ways. The policy of the railroad commission in regard to working capital is not altogether easy to understand. Nothing in the statutes seems to prevent the board from ruling that materials, supplies, and a bank account are necessary for the operation of any business concern, and are, therefore, proper items to be included in its capitalization. Undoubtedly a company that has impaired its capital by paying excessive dividends should not be permitted to issue stocks and bonds to provide new working capital. Reduction of dividends rather than capitalization of deficits is the obvious remedy for such a situation, and it is possible that the policy of the board was originally adopted to meet such cases as this. But with a new company or an established company that is enlarging its business the conditions are different, and there is no justification for a refusal to include working capital in the estimate of the necessary cost of the undertaking. Upon this point, as upon the questions of promoter's compensation and the issue of bonds at a discount, a wiser and more reasonable policy has been adopted by the New York Public Service Commission of the Second District.²⁵

²⁵ The decision of the Commission is so important that it should be quoted *in extenso*: "When the amount of the actual cost of the physical construction of the proposed road has been determined we are still far from having determined the amount of capitalization which should be allowed. There are many elements of cost attendant upon bringing into existence a new railroad additional to the cost of mere physical construction. Some of these elements may be enumerated as follows: (1) expense of organization, (2) incorporation tax, (3) expense of obtaining a certificate of public conveni-

IV.

The terms upon which a company may increase its capital stock have constituted the most troublesome problem the state has encountered in its control of the capitaliza-

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ence and necessity, (4) preliminary engineering expenses, (5) expense of procuring the authorization of issue of stock and bonds, (6) expense of marketing the securities, (7) discount upon the bonds provided they cannot be sold at par, (8) interest upon the bond issue during the period of construction and prior to the beginning of operations, (9) compensation of officers of the road during the construction period, (10) incidental expenses during construction period, (11) expense of obtaining local franchises and consents.

In addition to the foregoing matters there should be provided upon the commencement of operation a fair and reasonable amount of working capital. The operation of the company can be conducted with far greater efficiency, more to the satisfaction of the public, and with better results to the stockholders, if it has at all times in its treasury a working capital sufficient and adequate to meet the requirements of the road. Experience has demonstrated this so many times that insistence upon it or elaborate demonstration of its truth is not required at this time.

Another subject of great interest and importance is the compensation, if any, to which the promoters of the enterprise should be entitled for their services. Promotion has been so extensively abused and has been so universally used as a cover for abuses in capitalization that it has come to be regarded as a term of reproach and as a device to work schemes of robbery upon the investing public. No reason is apparent why this should necessarily be so. The honest services of a capable promoter are indispensable to the flotation of every comprehensive and far-reaching scheme of development in the railroad world, or elsewhere. A clear vision to see opportunities, ability to demonstrate them to others, and energy to push to completion works untried but of great moment, are indispensable to material development and should be fairly and even liberally rewarded by the public which receives the benefit of those works. Such rewards, however, should be put upon a clear basis of business principle, should be of sufficient magnitude to encourage rather than to discourage enterprise, and should not be so great as to make an exorbitant demand which is perpetual in its nature upon the community to be served. They are to be treated simply as just payment for services performed for the corporation, which services are valuable and in many cases even indispensable. Such services

tion of public service corporations.²⁶ Prior to 1871 the invariable practice seems to have been to permit new shares to issue at par, whatever the market value of the outstanding stock.²⁷ But in 1871 a law was enacted²⁸ which required a railroad to offer all new shares for sale at public auction when the outstanding stock was worth more than par. The purpose of this statute was evidently to force the sale of new stock at such premiums as the status of the companies and general market conditions should enable it to command, and to abolish such things as stockholders' "rights". In 1873 the same requirement was placed upon street railway and gas companies.²⁹

The wisdom of this action was vigorously assailed by the railroad commission in 1872.³⁰ The board pointed out that the avowed policy of the state had been to allow capital invested in railroads to obtain a profit of ten per cent,³¹ if good management enabled the companies to

should be paid for upon the basis of what they are fairly worth, having regard to all the circumstances of the case."

Opinion of the Public Service Commission of the Second District in regard to the application of the Rochester, Corning, Elmira Traction Company, pp. 11-12.

²⁶ On the history of legislation concerning new stock issues see the Report of the Commission on Commerce and Industry (1908), pp. 57-60; Grosvenor Calkins, in *Quart. Jour. of Econ.*, XXII, 640-644.

²⁷ Until 1870 railroad issues were authorized by special acts. In that year a general law was enacted which allowed all classes of corporations to offer new shares to stockholders at par, and to sell at public auction any shares not subscribed for. Ch. 179 of 1870.

²⁸ Ch. 392 of 1871.

²⁹ Chs. 39 and 305 of 1878.

³⁰ Report of 1871, pp. XIX to XX.

³¹ The early charters had expressly authorized profits of eight or ten per cent. The Revised Statutes of 1836 stipulated that tolls would not be reduced by the state below a figure yielding ten per cent on the capital invested. Ch. 39, sec. 83. This provision appeared

earn that amount, and showed that the new policy would reduce the return on new issues of stock to eight per cent, or even seven per cent, in the case of prosperous companies. This would be less than capital similarly invested in other states was permitted to earn, and the board raised the question whether the law of 1871 would not check railroad enterprises in Massachusetts and "divert their capital to other quarters".

Despite this criticism, the requirement that new stock be sold at auction remained in force until 1878, when it was repealed so far as railways were concerned.³² In 1879 street railways were similarly treated,³³ but the act relating to gas companies was left unchanged. Thereafter until 1893 railroads and street railways were permitted to issue new shares to their stockholders at par; but, singularly enough, the corporations had no authority to sell stock at a higher figure except by offering it at auction. In certain cases, however, the legislature, by special acts, required a few railroads to raise additional capital by selling their stock at public auction.³⁴

In 1892 the Connecticut River Railroad undertook to increase its capital stock from \$2,580,000 to \$5,000,000 by issuing 24,200 shares to its stockholders at par, and an act was passed by the legislature authorizing it to do so. The stock of the road was then selling at about \$235, and the objection was at once raised that the proposed action amounted to declaring a stock dividend of more than \$100 per share. Accordingly Governor Russell vetoed the bill which had passed the legislature, and the project was dropped. In most other states the matter would

in the General Statutes of 1860 (Ch. 63, sec. 112), but was repealed by the general railroad act of 1874 (Ch. 372 of 1874, sec. 179).

³² Ch. 84 of 1878.

³³ Ch. 90 of 1879.

³⁴ See special message of Governor Russell, May 9, 1892.

probably have attracted little attention at that time. Undoubtedly the stockholders proposed to cut and divide a melon of large size and excellent flavor; but, after all, the new stock was to be paid for in cash at the par value, and the proceeds were to be devoted to necessary improvements. Elsewhere it might have sufficed that the stock was to issue at par, but in Massachusetts the project was assailed as "indirect stock watering".

Interest in the question was not abated when, early in 1893, the Connecticut River Railroad was leased to the Boston & Maine at a high rental after \$1,290,000 of four per cent scrip had been distributed to the stockholders,³⁵ the scrip dividend exceeding by \$250,000 the entire surplus of the company. The immediate results were the enactment of a law regulating future issues of stock by railroads and street railways,³⁶ and the appointment of a joint-special commission to devise further methods of regulation.³⁷ In 1894 another law³⁸ brought all classes of public service corporations under the restrictions imposed on railroads and street railways the previous year; while other enactments, described in earlier paragraphs, limited all future issues of stock and bonds to such amounts as the state commissions should consider necessary for the purposes for which they were authorized.

The statutes thus enacted are known popularly as the "anti-stock watering laws"; we are now concerned only with those regulating the price at which new stock may be issued. They provided³⁹ that when a public service

³⁵ The terms of the lease were criticised by the railroad commission in its Report for 1893, pp. 24-26.

³⁶ Ch. 315 of 1893. See special message of Governor Russell transmitting a memorial from boards of trade.

³⁷ For report of this commission see Sen. Doc. 67 of 1894.

³⁸ Ch. 472 of 1894.

³⁹ The law may be found in the Revised Laws, ch. 109, secs. 30 and 31; and in ch. 463 of 1906, part II, secs. 69 and 70.

corporation increased its capital stock the new shares should be offered to stockholders at a price determined by the appropriate state commission.⁴⁰ This price was to be "not less than the market value" of the shares, and in determining it the commissions were required to take "into account previous sales of stock of the corporation and other pertinent conditions". In no case, however, were shares to be issued for less than par. In case any part of an issue was not subscribed for by the stockholders at the price thus fixed, the corporation was authorized to sell such shares to the highest bidder at public auction, but at not less than the par value. And finally, in case the new issue did not exceed four per cent of the existing capital stock, the corporation was permitted to sell it at public auction without undertaking to offer it to stockholders.

The purpose of the law was clearly that new stock should be issued at its market value, either as fixed by the commissions or by sales at auction. The auction sale would evidently make stockholders' rights worth nothing; and the commissions, naturally enough, acted upon the theory that in authorizing issues to stockholders they were expected to fix prices that would accomplish the same result. The law provided that in determining prices the commissions, besides considering "previous sales of stock", should take into account "other pertinent conditions"; and thus it was possible to make allowance for the fact that a new issue of considerable size would tend to depress the price somewhat below current market quotations. The outcome was that issues were usually authorized at prices a little less than those of the last recorded sales, but only enough less to allow for the natural effects

⁴⁰ Railroads and street railways apply to the railroad commission; gas and electric light companies, to the gas and electric light commission; and other corporations, to the commissioner of corporations.

of the increase of the stock. For this the commissions were sometimes criticized, but the history of the law, as well as its plain requirement that stock should not be issued at less than its market value, seems to support the interpretation they placed upon it; and it is certain that they would have encountered more criticism, although from a different quarter, if they had followed any other policy.

If, then, a corporation wished to raise \$1,000,000 by increasing its capital stock, and the commission to which it applied believed that the shares could be sold at a price of \$200, permission would be granted to issue but 5000 shares. Nothing short of omniscience could have enabled the boards to comply perfectly with the intention of the statute. Sometimes they fixed prices that made stockholders' rights fairly valuable and enabled the issues to be fully subscribed, but at other times they named prices that proved prohibitive. Two issues by railroads were fully subscribed at prices of \$215 and \$190, but a third failed at a price of \$165. No other railroads applied for issues to stockholders, the companies preferring to sell stock at auction in amounts less than four per cent of the outstanding capital, or to meet their requirements by issuing bonds. On the other hand 207 applications were made by street railways for authority to issue stock to shareholders. In 153 of these cases the shares were allowed to go out at par, since it appeared that the market value did not exceed that figure; and in 54 the stock was issued at a premium.⁴¹ No complete data are at hand for gas and electric light companies, but it appears that stock issues were fully subscribed in some cases at the prices fixed by the commission, and that in a few instances prices were placed so high that issues were not taken by stock-

⁴¹ See Report of Commission on Commerce and Industry, p. 66.

holders. The water and telephone companies, which fall under the jurisdiction of the commissioner of corporations, are now small concerns,⁴² and no cases have yet arisen where the available data enabled him to fix a price higher than par.

The argument by which the laws of 1893 and 1894 are generally defended is that public interest demands that the shares issued when a corporation increases its stock should be confined to the number absolutely needed to raise the capital that may be required. To permit the issue of a larger number is "indirect stock watering", and imposes upon the community a heavier charge for dividends than can be justified.⁴³ When, therefore, the stock of a public service corporation is worth more than par, new shares should be issued only at a premium; so that the public, and not the stockholders, may reap the benefit of the high market value. When first advanced, this sounded reasonable, and the Connecticut River episode appeared a conclusive demonstration of its truth. The "anti-stock watering laws" soon became a popular fetich, and he who questioned their expediency was deemed a citizen of at least doubtful desirability. Yet experience at length showed that some modification of the law was absolutely necessary, and in 1908, upon the recommendation of a special commission, an amendatory measure was enacted.

In the first place it is beyond question that the law checked investment in railroads. Between 1893 and 1907 no new lines were constructed, only 102 miles of second, third, and fourth track were built, and construc-

⁴² The larger telephone companies have left the state on account of restrictions on capitalization and some other regulations.

⁴³ This argument is best formulated in the special message of Governor Russell, above referred to, and the memorial accompanying the message of 1893.

tion was practically confined to the building of sidings. Some improvements were made, but it is generally agreed that the Massachusetts railroads have not kept up with the times, and now need to expend large sums of money in order to supply the facilities that the public demands. The roads finally came to the end of their resources, and some change was imperative. More than one cause may have contributed to this condition, but no small share of the responsibility falls to the law of 1893.

With street railways the case is not quite so clear. There has been since 1890 a rapid development of electric roads, but this was usually the work of new companies issuing shares at par or of old companies the stock of which did not yet command high premiums. For many years, therefore, the wisdom of forcing out stock at premiums was not put to the test; and it is only recently that difficulties have arisen. Many of the companies are now in such condition that it is not a question of selling stock at a premium but of inducing anyone to take new issues even at par, and some of the larger and more prosperous railways are facing large expenditures which they could hardly have financed under the law as it stood a year ago. In the opinion of a recent commission, the law of 1893 was not encouraging and was probably retarding the development of street railways. The situation of the gas and electric light companies is in many respects peculiar and cannot be considered in this paper.

One feature of the law which proved vicious in practical operation is the requirement that if an issue is not fully subscribed by stockholders the shares remaining unsold shall be offered at public auction. This always raises the question whether a stockholder would better subscribe for the shares when first offered at a price set by a commission, or refuse to subscribe and take the

chance of purchasing at auction at a lower figure. When an issue is only partially subscribed, the directors of a company confront a most unpleasant question. Some of the stockholders, presumably those most loyal to the company, have already purchased stock at a price apparently higher than the market value. Shall others, who preferred to await an auction sale, be given the opportunity to purchase the rest of the issue upon the more favorable terms the auction will probably establish? The injustice of such an arrangement has sometimes impressed directors so strongly that they have not tried to dispose of the shares which stockholders have left on their hands, and have borrowed money in order to meet pressing requirements.

To the auction sale there is the further objection that, if a large issue is offered, the price of the shares may be greatly depressed, while there is no possibility of guaranteeing a minimum price by having the issue underwritten. This fact alone might well discourage a company in good credit from undertaking large enterprises entailing considerable increase of capital stock. There is also the possibility that resort to an auction sale may lead to a change in the control of a corporation. This consideration may not be so weighty as the other just mentioned, but it may be sufficient to discourage large undertakings. When stockholders are given no alternative but to buy stock in their own corporation at a high premium fixed by a commission, or to go into an auction room and bid against outsiders for control of their own company, they may readily decide that it is best to leave well enough alone and seek other investments for their money. If this feature of the law had been intended to destroy the ordinary inducements to develop the business of an established corporation, it could not have been better contrived for that purpose.

Another thing fully established is that in requiring the commissions to fix the prices at which shares might be offered to stockholders the law imposed a most difficult and disagreeable duty upon the boards. Under favorable conditions expert financiers find it difficult to predict how many points the price of a security will be depressed when the issue is largely increased, and in an uncertain market accurate prediction is absolutely impossible. Yet this is the precise task which the commissions must perform, under unfavorable conditions as well as under favorable. Standing between the companies and the public, their position is difficult at best, and seldom more so than when they are obliged to determine the price at which stock may issue. If they name a figure that proves too high, they are straightway accused of incompetence; if they name one that proves too low, they may be accused of incompetence — and perhaps something uglier if not shorter. In a rising market their task is somewhat easier, since stockholders may subscribe for shares at very high prices if there is a prospect of subsequent increase; but in a falling market nothing short of omniscience would be adequate for the task. In Massachusetts the situation is made worse by the fact that the market for most of the issues is a narrow local market, in which the prices current represent a very small volume of transactions. If on sales of ten, twenty, or fifty shares a price of \$180 is established for a given stock, the cry of "stock watering" may be raised if a commission fixes \$150 as the price at which twenty, thirty, or forty thousand shares may be issued. What would happen if an issue of a million shares should be asked for can only be conjectured, because corporations are "regulated" out of the state before they become large enough to ask such embarrassing questions. Men who care nothing about their positions, and

less than nothing about their reputations, might perform cheerfully such a duty as the law imposed upon the commissions; others inevitably approach it with the utmost reluctance.

So much for the practical working of the law of 1893; the theoretical objections remain to be considered. The first is that for new investments involving unknown risks the law practically limited the return to a figure appropriate for investments of known value and solidity, but inadequate for any others. If a company conducting a business of known volume and character establishes its ability to pay regular dividends of six per cent, investors may purchase its shares at \$150, thereby accepting an interest rate of four per cent. If the company then increases largely its capital stock in order to increase its business, an unknown risk is substituted for a known; and if the capital is needed for improvements necessary to meet new conditions but not certain to increase immediately the earning power, the risk attending the investment is very greatly increased. If the commissions were endowed with omniscience, they might take all this into account, and fix a price for new issues that would make full allowance for the risk assumed. But in practice they inevitably consider chiefly the current quotations for the outstanding stock, and make but slight allowance for "other pertinent conditions". No different result could be expected to follow from the requirement that new shares shall issue at "the market value". Under it the return on new undertakings was limited to practically four, four and one-half, or five per cent, and investment in the stock of Massachusetts corporations was seriously checked. For small additions and extensions, involving slight risk, stock could be issued in limited quantities; but it was absolutely impossible to finance large enterprises

upon an interest basis hardly exceeding the rate paid on savings bank deposits or first-rate corporation bonds.

The second objection is that the law was inconsistent with the avowed policy of the state in respect to public service corporations. Through commissions and otherwise Massachusetts has undertaken to control the charges and service of these companies, and it must be evident that forcing the issue of stock at high premiums may make such control difficult or even impossible. If a corporation is paying eight per cent dividends and the state forces it to issue new shares at a price of \$200, the legislature and the commissions are thereafter estopped from reducing charges below a figure that will enable a company to pay eight per cent on its outstanding stock. By forcing the issue at \$200 the state virtually creates a new par by which the reasonableness of the companies' charges should be determined. If those charges were excessive at the time of issue, they should have been reduced, and the price of the new shares should have been adjusted to a lower rate of dividend. The investor knows that the state undertakes to regulate charges, and when a commission fixes \$200 as the price of a new issue, he has the right to assume that the established dividend of eight per cent is not unreasonable. The difficulty might be avoided by an express declaration that the investor has no right to assume that the commission is doing its duty under the law, and that the power is reserved to reduce dividends whenever the commission feels inclined to perform its proper functions; but this would not be likely to produce an overwhelming demand for stock at a premium of \$100. In common decency, if not in law, the issue of shares at high premiums fixed by agents of the state virtually guarantees existing dividends from subsequent reduction either by the legislature or the commissions.

The legal aspects of the matter may not be so clear. Outstanding securities are not necessarily accepted by the courts as the basis for determining whether charges prescribed by legislatures or commissions are to be deemed confiscatory. But under the conditions created by the law of Massachusetts, courts might readily hold that persons who purchase stock at prices fixed by the state or its agents are entitled to at least the ordinary rate of interest, provided good management enables a company to earn it. When stock is sold at auction, and not at prices fixed by a commission, the situation is somewhat different; and the probable attitude of the courts is more difficult to predict. But the equities of the case are hardly changed, since the purpose of the auction requirement is to force the sale of shares at such premiums as the established rate of dividend will induce investors to pay; and an investor is fairly entitled to assume that the state commissions are performing their duties, and the existing charges are not considered unreasonable.

In view of these considerations and upon the recommendation of a special Commission on Commerce and Industry, the legislature in 1908 amended the law governing the issue of new stock by railroads and street railways.⁴⁴ The amendatory act provides that a company, when increasing its capital stock, shall "offer the new shares proportionately to its stockholders at such prices, not less than the par value thereof, as may be determined by its stockholders". If it had stopped here, railroads and street railways would now be able to issue new stock at par or at such higher prices as the directors might determine. But it further provides that the railroad commission "shall refuse to approve any particular issue of stock if, in the opinion of the board, the price fixed by the stockholders

⁴⁴ Ch. 636 of 1908.

is so low as to be inconsistent with the public interest." The act, finally, left unchanged the provision that issues not exceeding four per cent of the existing capital stock may be sold at auction without being offered to stockholders, and that shares offered to stockholders and not subscribed for may then be sold at auction.

The amendment was obviously intended to make the conditions imposed upon the issue of new stock somewhat more liberal to investors. The old requirement that shares must be offered to stockholders "at not less than the market value" was stricken out, and the obvious inference is that they may now issue at something less than the market value. Under the former requirement the intention of the law was that stockholders' rights should be worth nothing; under the present, the obvious intention is that they shall be worth something. How much they shall amount to will depend ultimately upon the railroad commission, which is left to wrestle with the interesting but difficult question,—What is meant by a price of issue so low as to be inconsistent with the public interest?

Upon the answer given to this question depends the success or failure of the law of 1908. The board is indeed relieved of the unpleasant duty of fixing the exact price at which stock must be offered to shareholders, and this is a decided gain; but in its power to refuse approval of new issues at prices fixed by the companies, it has power to encourage or discourage investment in Massachusetts corporations. In the cases which have thus far come before it, the board apparently has laid down the principle that the law now sanctions the issue of stock at prices that give some value to stockholders' rights, but that a price will be considered "inconsistent with the public interest" if it makes the rights more valuable than is necessary to ensure the subscription of the needed capital.

The "bearing" of this principle, as Mr. Bunsby might remark, depends on the application of it by the board to particular cases. If the commission recognizes that stockholders' rights are among the ordinary inducements that lead capitalists to invest in the stock of corporations, that the value of such rights should depend upon the risk involved in investment, and that it is more important to secure necessary facilities for the public than to confine investors to a bare return of four or five per cent, all may go well.⁴⁵ If, on the other hand, it proceeds upon the theory that capital will eagerly seek investment in the stock of corporations upon the chance of earning a maximum profit of four or five per cent, the development of transportation facilities will continue to be impeded and the unsatisfactory conditions of recent years will surely continue. In justice to the board it should be remembered that its attitude must necessarily be determined very largely by public opinion, since it is the servant of the public. In last analysis, then, the future of the transportation interests of Massachusetts depend upon the willingness of the people to allow capital invested in the stock of railroads or street railways to earn something more—and considerably more—than the savings-bank rate of interest.

V.

Public control of public service corporations is definitely established in Massachusetts, and will never be abandoned. Control of capitalization is accepted as indispensable, and has accomplished many desirable results. The require-

⁴⁵ On the day after this was written the commission decided to permit the Boston Elevated Railroad to issue 66,500 shares at a price of \$110. The stock sold on that day at \$129, but on sales of only 120 shares. The company is undertaking large improvements which may not increase immediately its earning power, and the commission evidently took the reasonable position that liberal terms were necessary.

ment that the securities issued by a public service company shall represent actual investment in its property has proved sound in principle and beneficial in practice. Difficulties have arisen, however, in the application of this principle, and mistakes have been made that have cost the state dear, and may cost still more dearly before they are corrected. Particular requirements of the law are arbitrary and unreasonable, a few of the policies of the commissions are open to the same criticism, and the people have sometimes shown more zeal than wisdom in the regulation of the corporations. For all of these things no small share of the responsibility rests with some of the public service companies, since the mistakes have commonly arisen from justifiable efforts to prevent the repetition or continuance of definite abuses.

In confining my study to a single state and dealing somewhat minutely with details of law and administration, I have been actuated by the conviction that attention to such details is vital to any plan of public regulation, and the thing most needed in scientific discussion of the subject. I have been influenced, too, by the further consideration that since Massachusetts has been engaged in her task longer than any other state, her experience should prove peculiarly instructive. In its general features her policy may well serve as a model, but she has made errors in detail which other states should be careful to avoid.

Of the larger questions involved the most difficult is that of the terms upon which successful corporations shall be permitted to increase their capital stock. Issue at the market price surely discourages investment and may defeat proper regulation of charges; issue at par may sometimes afford excessive gains and cause public discontent; issue under the terms of the act of 1908 may be a

satisfactory solution if the railroad commission exercises its veto power with discretion. Here, as elsewhere, the people need to consider that securing adequate service is just as important as regulating the profits of investors; and that the policy of regulation will fail just as surely if it leads to industrial stagnation as it would fail if it tolerated dishonest management and extortionate charges. For Massachusetts to fail at either point might seriously prejudice the cause of public regulation in the eyes of the entire country.

CAPITALIZATION OF CORPORATIONS—DISCUSSION.

F. J. SWAYZE: We have not had in New Jersey the difficulties which Professor Bullock has spoken of as arising under the Massachusetts statute. We have been, perhaps, too liberal in our laws, allowing corporations to issue stock for property, when it is often done at a gross overvaluation; but the statute provides, and the courts have always, where a proper case has been presented, insisted that the stock should represent money or money's worth. The great difficulty presented is not with the legal principles involved, but with the proof, and it is, generally at least in a case of any importance and always after the lapse of time, exceedingly difficult to prove the fact of overcapitalization. I was myself counsel in the chief case in this state in which the promoters of a corporation were made to pay a considerable sum to a receiver on account of their stock liability, but the litigation was a very long and expensive one, and would not be open to the ordinary litigant. The consequence has been that a feeling has grown up among many thoughtful men that the true solution of the difficulty is not to put corporations in a strait-jacket, for, when they require money they must, as Professor Bullock's paper has shown, accede to the terms upon which lenders are willing to advance the money. Some of us have come to think that the true solution is that suggested by Governor Stokes in his last annual message,—to allow corporations to issue stock that shall represent what the fact really is, the fractional share of the assets of the corporation to which the particular stockholder is entitled, and specify no par value what-

ever. This would leave the stock to find its value in the market, as in fact it does under our present system, and would avoid the difficulty of imprinting upon the stock what may be false. A difficulty might, of course, arise, if this method should be adopted, when it comes to determine what are reasonable rates, but I don't know that this difficulty is any greater than that which is presented by the present situation. The truth is, I think, that the determination of rates bears a very remote relation to the capitalization of the corporation. It depends upon a great many considerations, and is largely a matter of historical growth, or of custom, a reasonable rate being that which people are accustomed to pay, or what is deemed to be fair. And in the case of railroad rates, where the question is so extremely complicated that a rate which might produce no returns, and not even the bare cost of doing the business, may, in special instances, be a perfectly fair rate, while in instances of other commodities a rate which bears a very large proportion to the cost of the service, and the returns from which are lucrative to the corporation, may still be deemed reasonable by those who have the bills to pay. I am quite skeptical as to the ability to determine by any mathematical formula the reasonableness of any rate when the question is at all complicated, as it necessarily is in the case of railway rates. To my mind, such work as can be done by the public authorities must largely be done in the direction of collective bargaining. The case may possibly be different with gas companies and electric light companies, or where the commodities supplied are few in number and the place in which the company operates is comparatively narrow, but even in such cases it would be difficult to adopt a mathematical formula based upon a percentage of the capital invested.

We have recently had occasion in New Jersey to pass upon the reasonableness of charges for water, and one of the questions which we had to consider was the reasonableness of expenditures made, not for the immediate needs of the service, but with a view to the probable future expansion.

If a mathematical formula is not to be adopted, and if, as the decisions of the courts heretofore seem to indicate, considerations such as I have suggested are to apply, it becomes of little consequence whether we issue stock with a par value, or whether we merely indicate that a certificate represents a fractional share of the corporation.

MILO R. MALTBY: Although Professor Bullock does not definitely state that he would favor a repeal of the provisions of the Massachusetts law making it impossible to issue securities below par, he indicates that the plan is at least worthy of discussion. In my opinion, it would be exceedingly unfortunate for Massachusetts to take this backward step, and I am surprised to hear that anyone seriously recommends it, as this is one of the provisions which seems to be generally approved not only by the public but by Massachusetts corporations themselves. It has been upon the statute books for many years, and is a principal reason why overcapitalization in the Bay State has not been so rampant as elsewhere. It is interesting to contrast the street railway situation in New York with that of Boston or any other Massachusetts city. It is beyond question that the statutory limitation has prevented many of the evils from which we have suffered and are now suffering in New York.

Furthermore, it has not prevented the development of private corporations. The gas, electric light, and street railway companies of Massachusetts are as progressive

as those of any other state of the Union. Their lines have been extended in a way surpassed by no state, and in the main the corporations are in a healthy condition and prosperous.

The difficulty, apparently, which seems to affect Professor Bullock so greatly is that certain corporations found it exceedingly difficult to issue securities at par during the past year and a half. But what corporation did not find it difficult to do so? The universal trouble was due not to the law but to the commercial conditions and to the financial panic from which we are just emerging. It is possible that if there had been no restriction upon the price at which securities could be sold, it would have been easier for corporations to dispose of them, but that is not the only solution, and it would seem exceedingly unwise to recommend the general adoption of a plan which is suited to abnormal conditions only and which is unnecessary except perhaps occasionally.

However, if a corporation finds it difficult to issue its stock at par under normal conditions, why is it necessary to allow it to sell below par? By so doing the earning capacity of the company is not affected beyond the amount of money *actually* invested; that is, the financial status of a corporation is determined not by the securities which it issues but by the amount of money actually invested and the earning ability of the investment. If stock of a par value of \$1,000,000 is issued for \$500,000 cash, it does not mean that the company will earn a profit upon \$1,000,000 any more than it does if the par value of the stock had been made \$500,000 and it had been disposed of at par. Furthermore, the stockholders will not receive a greater amount upon their *investment*. They will receive the same in any case, and the fact that the par value of their stock is twice the investment will not of itself make profits.

If it is necessary to give certain stockholders a preference over others, it does not follow that the only remedy is to allow stock issued to these holders to be sold below par. Preferred stock of various classes may be issued, and there are various other ways of reaching the same result; one is not forced to adopt the plan of selling stock below par.

As long as stock bears the dollar mark—it may be wise to remove the dollar mark entirely—it should mean something. It is pure misrepresentation to allow corporations to issue stock each share of which bears upon its face a certain value which is wholly fictitious and which has no relation whatever to the actual investment. People generally assume that \$100 in stock represents an investment of \$100, and if there were not this general supposition, which of course is often erroneous, there would not be the clamor that there is from certain quarters for permission to issue stock below par. As long as the dollar mark remains upon stock, let us be honest and straightforward and require that it shall be issued only for what it is supposed to represent.

It is impossible, in the few moments allotted to me, to discuss the sale of securities by public bidding. "Auction clauses", a phrase familiar to every gas man in Great Britain, have been in operation for more than a generation in many English cities. They work exceedingly well, and are so satisfactory that many corporations in Great Britain would strenuously oppose their repeal. Before one demands that the whole idea shall be thrown overboard simply because a few features adopted in Massachusetts have not proved satisfactory, he should carefully study English experience. In my opinion, certain changes ought to be made in the Massachusetts law, but to claim that the whole idea is wrong indicates that the

matter has not been carefully studied, and the experience of other countries and states where it has been tried has not been carefully investigated.

The argument is frequently made not only against the Massachusetts system, but against every form of public regulation and control, that it will drive out capital. It is undoubtedly true that whenever a state enacts laws which render it impossible for financial manipulation to continue that certain individuals who often control large sums of money will be forced to look elsewhere for a suitable field of operation. If this is an objection, the same argument could be urged against many meritorious measures. Laws against jerry-building, child labor, and piracy drive out capital and make certain occupations impossible, but no one seriously considers this fact as an argument against such laws. Piracy in corporation management is not only injurious to the individual but has imperilled the health of the state, and the loss of those individuals who promote such enterprises is a gain to a community.

Furthermore, when public service corporations are put upon a sound basis, investment capital will be attracted to them. Under the conditions that have existed in some states, the investor has been driven to other fields because of the improper methods that have been adopted. He will be induced to return when conditions are made stable and when it has become impossible for a corporation to be so manipulated as to deprive him of his investment or a fair return thereon. This is not theory alone, for the experience of England has clearly shown that, under public regulation and control, manipulation has ceased and securities of public service corporations have passed from the speculative to the investment class. Again, public regulation is spreading throughout the United States, and

as state after state enacts laws providing for stringent supervision of financial matters, the opportunity for the manipulator to follow his calling will be greatly reduced, and finally removed entirely. Capital will then go naturally where it is most certain of a fair profit.

E. D. DURAND: The Bureau of Corporations, with which I am connected, has not formulated any definite policy or views on the subject of capitalization.

The paper of Professor Bullock is particularly valuable as showing the difficulties which arise in any attempt to regulate capitalization. Those difficulties, moreover, are much greater when a state or the federal government seeks to introduce regulations where they have previously been absent. Massachusetts has had regulation continuously, and there has been less opportunity for vested rights to become established than elsewhere. Where corporations have been allowed to overcapitalize, and the earning power has been such as to cause the stock to sell at a price representing more than the actual investment, innocent purchasers at such higher price feel themselves wronged if, by any regulation of charges or prices or of capitalization, their stocks are reduced in value below the purchase price. While in the case of some public service corporations it might very properly be held by the general public that such investors took their own risk of regulation when they bought their stock, it is scarcely likely that the courts or legislatures will be disposed in general to disregard vested interests of this character, and any proposition to regulate prices and charges with sole reference to the actual investment is scarcely feasible from the political standpoint.

Difficulties with regard to capitalization are conspicuous in the case of such corporations, especially railroads,

as are likely to desire to combine with other corporations in the future. The adjustment of the capitalization in the case of such combinations, if such stringent rules as exist in Massachusetts are applied, can hardly be done without injustice. Take, for instance, a corporation which is undercapitalized, either in the sense that its capital is less than its actual investment or that it is less than the capitalization of its earning power at the normal rate. If such a corporation desires to combine with another which is not undercapitalized, or which is actually overcapitalized, the enforcement of the rule that the aggregate amount of the stock issued as the result of the combination shall not be greater than the amount previously outstanding will work a hardship. One suggestion which has been made to avoid this difficulty is that any undercapitalized corporation (even if the undercapitalization be merely with reference to earning power and market value of the stock and not to actual assets) should be permitted to issue additional stock, without additional investment within a certain time after the passage of the act regulating capitalization, so as to make the total stock of such corporation equal to its value as a going concern, thereby reducing the market price of the stock substantially to par. Such a permission would, of course, have to be restricted as to the time within which the additional stock should be issued, since otherwise, in the case of a corporation enjoying monopolistic profits, the increase in such profits after the passage of the law would become a basis for capitalization, which is precisely what is not desired. In other words, assuming that it is necessary to permit the capitalization of such vested interests as exist today, the law should so arrange as to prevent the future development of further vested interests and the capitalization of future increase in earning power.

W. Z. RIPLEY: While without doubt the restrictive policy of Massachusetts has many disadvantages, a comparison of the capitalization of its public service companies with those of other states affords clear evidence of the protection to investors and security for the public against overcapitalization. Some details in the law, such as the sale of stock at public auction, may properly be criticised. There is also little doubt that the law has been somewhat too strictly enforced. The obtaining of capital for development has been rendered somewhat too difficult. Yet, on the other hand, the principal difficulty under which companies like the Boston and Maine are at present suffering is of their own creation. Had the Boston and Maine Railroad properly withheld distribution of a part of its earnings in the form of dividends and reinvested them in the form of improvements and additions to their plant, the present crisis in its affairs need never have occurred. The recent liberalization of the Massachusetts statute is probably fitting and proper under the circumstances, but to reason that because a law has been somewhat too strict the principle of it is thereby wrongful, would be wide of the mark. On the whole, we are very much better off than are states like New York and New Jersey, where no limitation whatever is placed upon capital issues.

R. T. ELY: I think it would be well in this connection to say something about our Wisconsin practice. As you all know, the public utilities in Wisconsin are under the control of our railroad commission. So far as I can gather, our commission makes accuracy of measurements the first consideration. This was the first thing insisted upon when the Madison Gas and Electric Company's case was brought before the commission, on a petition for a reduc-

tion of rates. It was decided that meters and all measurements must be first of all scientifically accurate. The next step was to prescribe quality. I think, generally speaking, it would be held by the commission that quality of service must come before reductions in rates. There seems to be good reason for this order of procedure. We cannot tell what is a reasonable rate until we have accuracy of measurements and satisfactory quality. This would hold with regard to railway rates generally.

From the first, also, our Wisconsin commission attached great importance to physical valuation, for this is one measure of value and measure of value is a factor in determining reasonable rates. Physical valuation is one element only, but it certainly is one of very great importance. Valuations in Wisconsin are made by trained engineers, and so far as I know they have proceeded more thoroughly with us than anywhere else. The engineers are making mortality tables of various parts of utility plants, — boilers, for instance, — in order to determine proper depreciation.

After we have accuracy of measurements and service rendered, after we have satisfactory quality, after we have careful valuations, we are then in position to prescribe rates rationally and justly.

I should like to mention one other matter concerning corporation practice, as it has fallen under my observation as a director of one or two small corporations. I was once inclined to hold that in the case of all corporations, as of bank corporations, capital should be paid in full. My experience, however, has shown me that there is a strong ground for taking another position in the case of corporations of some kinds. One cannot always tell in advance how much capital will be needed to manage the corporation, and it is therefore wiser in such cases for only

a part of the capital to be paid in. There are frequent cases in Wisconsin where a third or one-half of the capital is paid in, but the stockholders may be called upon for the balance. This tends to the security of the corporation and to the protection of the stockholders. The arrangement in cases of this kind would frequently be not to call upon the stockholders for further subscriptions, though in an emergency they can be called on. This makes it possible to save property which might otherwise be lost to the stockholders. The practice as I have observed it is to issue at first stock only to the amount that is actually paid in. If the amount subscribed for is \$10,000, and fifty per cent is paid in, the subscriber would receive stock for \$5000. In such cases it would generally be the intention to issue the balance of the stock to him without further charge if the stock of the corporation should increase in value correspondingly. This is a frequent practice in the case of corporations dealing in real estate.

If it is clearly stated in such cases what is the amount actually paid in, there would seem to be very little objection to the practice, provided, also, that there is satisfactory scrutiny of the issue of new stock as stock dividends. In Wisconsin it is true there is no satisfactory scrutiny of the issue of new stock, not even in the case of public utility corporations and consequently there may be overcapitalization. Public opinion, however, in Wisconsin, as far as I have been able to observe, would not look with favor upon the issue of any stock which was not supposed to be represented by a corresponding value.

EDWARD W. BEMIS: The previous speaker has recommended the sliding scale in gas and the so-called Chicago plan in street railways. There is much to be said in favor

of the ultimate adoption of the sliding scale, but the fatal objection in the minds of many to its immediate adoption is this: companies would secure today too high a valuation of their capital, which would become the base line for estimating future dividends and prices. Public sentiment is so rapidly growing in favor of a lower value or entire neglect of franchise, good will, and going values that it will pay the public to delay entering into long contracts such as the sliding scale involves.

An equally serious objection to the Chicago plan, by which a company divides with the city a share of the profits rather than a reduction of fares, is that thus the street car riders are forced to pay part of the taxes. It is not an equitable system of taxation, although in some cases it may be the only practicable method.

It is not the fault of the Massachusetts commission in many cases that it has not reduced prices, for the law has contemplated that the initiative should be taken by patrons or consumers or by city officials. The commission at present is more vigorous than hitherto. There have been and perhaps still are three fundamental weaknesses in the Massachusetts theory of regulation:

1. An over emphasis upon capitalization as compared with regulation of price and service. The protection of the investor does not necessarily protect the consumer.

2. By dispensing with the so-called auction clauses that prevail in English gas companies and adopting a definite minimum price at which new stock may be sold to old stockholders, the state has, it is to be feared, given sacredness to the large earnings of the original stock. For example, on stock paying 10 per cent and may be selling at 200 the commission would allow a further issue at say 165. On this 6 per cent would be earned. Later the public, convinced that 10 per cent is too high a return on

four-fifths of the stock, seeks a lower price for light or street transportation, but this would reduce the return on the new stock so much below 6 per cent as to seem to some confiscatory. The consumer would be better off if the state had not gone further than the English auction clauses.

3. The Massachusetts commissions have been indifferent as to the magnitude of profits in the past, provided that all in excess of from 6 per cent to 10 per cent was invested in the plant. The theory was that the public would ultimately get the benefit. Court decisions now render this doubtful. The Massachusetts Lighting Commission is now beginning to demand a return to the people yearly in reduced prices of profits in excess of a reasonable amount.

The United States Supreme Court has before it in the Consolidated Gas case more important economic principles than it has faced since the Dred Scott case. What constitutes a proper valuation for purposes of rate making? Shall we include in physical value increased cost of land since purchased and the value of the paving laid by the city over the mains and conduits? Shall we allow any value to good will, going value, and franchises? The whole problem not only of regulation, but of public ownership, will rest in part on how these questions are ultimately settled. So far as the courts favor the companies in these matters, to that extent will public ownership be developed, for the latter never dreams of capitalizing the various values just referred to.

C. J. BULLOCK. There is no suggestion in my paper that the Massachusetts laws relating to the issue of securities should be repealed. I do, however, assert that it would be desirable to permit the issue of both stock and

bonds for less than par *under certain circumstances*, and subject to the approval and supervision of the proper commission. Mr. Maltbie's remark that an embarrassed corporation should be immediately required to reorganize simply shows reckless disregard of the conditions under which Massachusetts public service corporations have been developed. Their securities represent cash invested at par, or at high premiums, in good faith; and to give such companies no option but immediate reorganization would be one of the most effectual methods that could be devised for discouraging investment in public service securities. Mr. Maltbie speaks as if an issue of stock at less than par gives certain stockholders a preference over others. As a matter of fact the law requires a *pro rata* distribution of new stock, and no possible preference can be thereby created. His statement that the laws have not restricted enterprise merely shows that he is totally unacquainted with the facts, and does not need serious consideration. It is enough to say that the situation in 1908, so far as railroads were concerned, had become so acute that the legislature without serious opposition made a radical change in the law. Professor Ripley admits that the laws have been too strict in some particulars, and that the amendment of 1908 was desirable. He intimates, however, that the difficulties in which the Boston and Maine Railroad was involved were due to the fact that the road had been paying excessive dividends, and he says that the embarrassment might have been avoided if the company had withheld from the stockholders a part of the dividends paid them and invested it in improvements and additions to the plant. Such a course might have been easy and obvious if it had not been for difficulties created by the laws of the state. In the first place, much of the stock had been issued at such high prices as 160 or even

190, and the directors of the road were entirely justified in feeling that a dividend rate of 6 or 7 per cent, which amounted to less than half of that rate upon some of the shares, was not excessive. They were further aware of the requirement of our savings bank laws by which if the dividends should be reduced below 4 per cent the bonds of the company would cease to be a savings bank investment. Some critics of the railroad advocated reduction of dividends to 2 per cent, which would of course destroy the chief market for bonds. It is further to be considered that if the dividends had been cut to 4 per cent or less the stock would probably not have sold at par, and that under our public service laws the company would then have been unable to raise more capital by the issue of stock. It will be evident to anyone who considers these things that in endeavoring to pay dividends of 6 or 7 per cent the directors of the road were following the course that it was natural for them to take. Mr. Maltbie was good enough to intimate that my criticisms of the working of the auction requirement indicate that "the matter has not been carefully studied." I am quite content to leave the case as I stated it. The facts as given are not open to dispute, and the conclusions drawn from them seem amply warranted. My remarks did not relate to Massachusetts gas companies, which have not been so much embarrassed by the auction laws. I am, indeed, of the opinion that it is possible for public service companies operating on a small scale and enjoying secure local monopolies, to raise capital in small amounts by selling securities in an auction room. For large enterprises, however, involving large issues of securities, such a method of sale seems to be the one best calculated to secure the lowest price; and I am constrained, therefore, to stand by all that I have said concerning the bad results

that have followed this provision of the Massachusetts law. In conclusion I may observe that general remarks about the desirability of public regulation, which was in no way called in question by my paper, but was expressly affirmed, will not help at all in rectifying the absurd mistakes made by Massachusetts or in enabling other states to avoid them.

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